COLUMBIA LIBRARIES OFFSITE
HEALTH SCIENCES RESTRICTED
HR00207780

THE LIBRARIES

COLUMBIA UNIVERSITY

HEALTH SCIENCES
LIBRARY

JAN 26 1979
SM


Digitized by the Internet Archive
in 2014

https://archive.org/details/alienistneurolog2219unse

"Quantam ego quidem video motus morbosi fere omnes a motibus in systemate nervorum ita pendent morbi fere omnes quodammodo Nervosi dici queant."—CULLEN'S NOSOLOGY: BOOK II, P. 181—DINBURG, ED. 1780.

THE

Alienist and Neurologist

A JOURNAL

—OF—

Scientific, Clinical and Forensic

NEUROLOGY AND PSYCHOLOGY,

PSYCHIATRY AND NEURIATRY.

Intended especially to subserve the wants of the General Practitioner of Medicine.

VOLUME XXII.

CHARLES H. HUGHES, M. D., Editor.
MARC RAY HUGHES, Associate Editor.

HENRY L. HUGHES, Manager and Publisher.

3857 Olive Street, ST. LOUIS, MO.

CONTRIBUTORS AND COLLABORATORS.

TO VOLUME XXII.

AUG. HOFFMAN,
Düsseldorf.

CHAS. O. MOLZ,
Bedford, Ind.

JAS. G. KIERNAN,
Chicago.

CLARK BELL,
New York.

C. H. HUGHES,
St. Louis.

J. W. BLACKBURN,
Washington, D. C.

HARRIET C. B. ALEXANDER,
Chicago.

J. E. COURTNEY,
New York.

ALBERT B. ASHMEAD,
New York.

WM. W. IRELAND,
Scotland.

SAMUEL L. MITCHEL,
New York.

T. D. CROTHERS,
Hartford.

E. C. SPITZKA,
New York.

PROF. HOCHE,
Strassburg.

SANGER BROWN,
Chicago.

W. XAVIER SUDDUTH,
Chicago.

B. DEBORD YOUNG,
Oklahoma.

MARC RAY HUGHES,
St. Louis.

E. S. TALBOT,
Chicago.

HAVELOCK ELLIS,
London.

J. P. MÖBIUS,
Breslau.

INDEX TO VOLUME XXII.

ORIGINAL CONTRIBUTIONS.

Autopsychorhythmia or Repetition Psycho-Neurosis 75

A Study of Four Cases of Mental Disease and Four Intracranial Tumors Connected Therewith 88

Combined Monobrachial Chorea and Writer's Cramp from Occupation Strain 478

Dangerous Paranoiacs—with Auto-Biography of One 139

Degeneracy Stigmata as a Basis of Morbid Suspicion 50

Degeneracy Stigmata as a Basis of Morbid Suspicion 287

Degeneracy Stigmata as a Basis of Morbid Suspicion 480

Degeneracy Stigmata as a Basis of Morbid Suspicion 668

Fatigue in its Relation to Consciousness 468

Friedrich Nietzsche: A Study in Mental Pathology 223

Heredity and Epilepsy 460

Juvenile Female Delinquents 689

Malthusianism and Degeneracy 112

Medicine in 1800 305

Medical Jurisprudence in the Nineteenth Century 58

Morphinism and Crime 325

Normal and Abnormal, Rational and Irrational, Healthy or Unhealthy Delusion 643

Possible Cause of Insanity Among Americans in the Orient 150

Race Degeneracy and Dental Irregularities 495

Some of the Medical Phases of Insanity 37

The Development of the Sexual Instinct 500

The Development of the Sexual Instinct 615

The Employment of Physical Methods in the Treatment of Nervous Diseases 1

The Legal Disabilities of Natural Children Justified Biologically and Historically 332

The Legal Disabilities of Natural Children Justified Biologically and Historically 522

The Legal Disabilities of Natural Children Justified Biologically and Historically 695

The Physician's Duties in Committing Insane to the Hospital 449

The Physician's Duties in Committing Insane to the Hospital 657

The Physiological Mental Weakness of Woman 624

The Prophylaxis of Insanity 475

The Successful Management of Neuralgia 268

324223

SELECTIONS.

NEUROTHERAPY—
A Fatal Dose of Morphine 364
Anesthesia by Spinal Cocainization 164
Animal Extracts in Insanity 158
Antagonisms of Chloral-Hydrate and Cocaine 166
Antitoxin Treatment of Tetanus 551
Bromides in Epilepsy 361
Cataphoric Spinal Anesthesia 548
Chloretone 552
Contra Indications of Iodin and Sulpho-Cyanide 361
Diagnosis Therapy of Locomotor Ataxia 713
Dormiol— Yohimbin — Fish-Diet and Leprosy 160
Electricity in Brain Failures 166
Electrotherapy of Insanity 166
Electricity in Respiratory and Cardiac Failure 358
Faulty Digestion and Maltopepsin 551
Gymnastic Treatment of Tabes 552
Mechanical Treatment of Vertigo 712
Nine Cases of Melancholia Treated with Thyreoids 712
Nutrition and Stimulation 549
Organo-Therapeutics in Mental Diseases 161
Phototherapy 552
Physiological and Artificial Sleep and the New Hypnotic—Chloretone 157
Santonin in Tabes 551
Sodium Permanganate in Phosphorous and Morphine Poisoning 549
Soukhanoff 361
The Good and Bad Effects Obtainable from Digitalis Used as a Therapeutic Agent 711
The Question of the Transformation of Calomel into Corrosive Sublimate in the Organism 166
The Laxative Antikamnia and Quinine Tablet 360
The Nerves of the Capillaries with Remarks on Nerve Endings in Muscle 550
The Sleep Remedy in Disease 359
The Treatment of Syphilis 362
The Use of the Enema in Insanity 552
Tongue Traction for Hiccough 360
Treatment of Tinnitus Aurium 155
Untoward and Fatal Sub-Arachnoid Anesthesia 357
Untoward Effects of Sodium Cacodylate 362
Vaso-Constrictive Properties of Quinine 549

CLINICAL NEUROLOGY—
Acid Intoxication in Epilepsy 703
Acromegaly with Diabetes–Tumor of the Pituitary Gland 177
Adiposis Dolorosa, Pituitary Tumors 167
Alcoholic or Arsenical Neuritis 537
A Large Dose of Hyoscin 546
Babinski's Phenomenon 351
Bias in Clinical Medicine 176
Brain Atrophy Forty-nine Years After Arm Amputation 532
Chorea During Pregnancy 533
Concerning Diabetic Coma Produced by Trauma 545
Concerning the Frequency of Sugar in the Urine of Corpulent Persons 545
Die Ursache des Neurasthenie 354
Epileptoid Trembling as a Phthisis Symptom 538
Exophthalmic Goitre 167
Gastroptosis and Neurasthenia 356
Haematomyelia 168
Hereditary Epilepsy of Fifty Years Duration Cured by an Attack of Hemiplegia 356
Hyperemesis Gravidarum and Hysteria 533
Hysteria and Treatment of the Placenta 533
Hysterical Aphasia 703
Influenza as it Affects the Nervous System 544
Innervation Areas and Nevus 700
Left-Sided Choreiform Movements After Trauma 535
Locomotor Ataxia and Syphilis 174
Locomotor Ataxia in Women 532
Lost Personal Identity 357
On the Pathogenesis of Choked Disc 169
Optic Neuritis Produced by Thyroid Extract 547

Oxygen in Neurone Exhaustion 700
Paraesthesias and Internal Organ Affections 351
Paralysis Agitans Without Tremor 548
Pathogenesis of Night Terrors in Children 703
Peripheral Perforating Plantar Ulcer Cured by Faradisation of the Posterior Tibial Nerve 540
Plantar Reflexes in Infancy 537
Polioencephalitis Superior 352
Relation Between the Occurrence of Appendicitis and the Presence of a Neurasthenic Tendency 355
Skin Changes in Paralysis 177
Status Epilepticus 543
Spasmodic Dysuria of Children 701
Stereoagnosis 539
Syphilis Preceding Tabes 172
Syringomyelia or Leontiasis Ossea 532
The Elevator Disease 175
The Etiology of Anterior Poliomyelitis .. 178
The Nervous Symptoms and Sequelae of Influenza 179
The Pupil After Death 547
The Pupillary Movements 170
Three Cases of Acromegaly 544
Three Recent Nervous Symptoms 173
Transverse Myelitis 168
Ueber Die Bedeutung der Zehenreflexe 354
Visual Disturbance After Ligation of the Carotid 177
Word Deafness 537

NEURO-SURGERY—
Brain Tumor Operation and Recovery .. 349
Jacksonian Epilepsy with Reference to Operation 716
Resection of the Cervical Sympathetic .. 182
The Technique of Lumbar Puncture 183

NEURO-PHYSIOLOGY—
Are All Nerve-Cells in Direct Connection with Blood-Vessels 368
Experimental Research on the Compensation of Sensory Ataxia 565
Gains of the Century in Neurology 364
Histological Examination of a Spinal Cord Affected by Syringomyelia and Multiple Heterotopia 369
L'etude de L'etat Moniliforme des Dendrites Corticales 718
On the Evidence of the Golgi Method for the Theory of Neuron Retraction 716
On Vasomotor Nerves in the Brain 713
The Neuron in Anatomy and Physiology 184
The Psychology of Alcohol 370
The Relation of Prostate to the Fecundating Power of Semen 715

CLINICAL PSYCHIATRY—
Acute Delirious Mania 184
A Case of Death from Psychic Insult 345
Animal Sacrifice for Human Disease 556
Care of the Feeble-Minded 563
Clergymen and Hysterics 556
Epileptic Hypothermia 563
Erotic Hallucinations 344
Insanity in Twins 553
Insanity in Bank Officials and Bank Failures 555
Insanity of Pregnancy, Puerperium and Lactation 560
Malaria and Insanity 558
Mazoclasm (Mazoclastia) 349
Mental Sanitation 348
Murdered Wife and Three Children 349
Paretic Dementia 185
Psychic Shock 341
Sadism in Child Nurses 558
Sexual Periodicity in a Paretic Dement 343

NEURO-PATHOLOGY—
Coarse Autopsies at New Hampshire Asylum for the Insane 373
Notes on the Invasion of the Cortex with Leucocytes in Paresis 566
On Varicosity of the Cortical Dendrons 372
Spinal Lesions from Dystocia 710

PSYCHO-THERAPY—
Brains of Three Hundred Suicides Examined 564
Human Tears a Remedy 564
Psychotherapy of Pain 564

SURGICAL NEURO-THERAPY—
Dr. Robert T. Morris 566

FORENSIC PSYCHIATRY—
Double Consciousness 707
Forensic Non-Criminal Aspects of Psychic Epilepsy 706
Forensic Aspects of Head-Knocking in Children 705
Responsibility of the Sexual Pervert 704
Seeming Premeditation by an Epileptic Homicide 708
Suggestion and Dying Declarations 706

EDITORIALS.

A Capture by Courtesy 740
A Commissio de Lunatico Enquirendo for Czolgosz 722
A Hypnotizer's Subject Killed in Action 592
Alleged Increase of Insanity in the British Isles 375
American Medico-Psychological Association 396
American Medicine 745
A Military Medical School 406
Among the Best Contributions 202
An American Physician in the English House of Lords 194
Anaesthesia Effected During Sleep 593
An Alienist and Neurologist for the Pension Bureau 593
An Interesting Discussion 410
A Psychic Alternative 408
A Psychic Source of Hazing at West Point 741
Arsenauro Has a Witty Tombstone Ad 735
A Symposium 407
Austrian Recognition of Theo. Meynert's 738
Beautiful Oak Grove 194
Better Business Organization 745
Braithwait's Retrospect 728
California Redeemed 588
Cancer Miracles 583
Change in Editorship of Brain 594
Christian Science and Crumpets 741
Contracts with God and Sanity 383
Concussional or Traumatic Cerebro-Spinal Neuroses 730
Corning's Subarachnoid Cocaine Anæsthesia 198
Corning's Cord Cocainization 199
Death of Dr. Frank Hoyt 730
Death of T. B. Wheeler 396
Delusions of Adultery 593
Demonology of Microbes and Appendicitis 572
Dr. R. W. Gardner 201
Dr. Gustavus Blech 383
Dr. Lewellys F. Barker 395
Dr. Shurtleff's Mental Illness 568
Dr. George H. Searcy 747
Effect of Alcohol on the Brain 197
Effect of Intense Electric Light Glare on the Retina and Optic Nerve 199
Entrance and Exit Medical Graduate Qualifications 399
False Accusation of Rape 575
False Secondary Sensations 580
Fanaticism or Insanity 381
Forceful Temperature Taking of the Insane 590
Freda Ward's Counterpart 734
Gouty Insanity and the American Revolution 386
Grip Melancholia—Death of Dr. William H. Daly 596
Heredity 398
Hope Killing Hospital Names 578
How We Are Progressing 397
Hypnotizing Against Hypnotism 400
Hysteria 404
Hypnotism and Capital Operations 572
Hypothermia as an Epilepsy Symptom .. 573
Insanity in Actors 189
Insane Judges and Insane Jurors 374
Introducing the Editor-in-Chief 411
In Memoriam, William Leonard Worcester, M. D. 737
It is Painful to the Patriot Student 394
Judge Wiltbank 397
Justice Brown on Tobacco 395
Kidnapping of Children by the Insane 400
Legislation Against Marriage of Degenerates 578
Lyssophobia, Psychic Hydrophobia 741
Marriage and Suicide 196
Mark Twain's Bad Break Regarding Osteopathy 383
Medical Generals 405
Medical Rank at Victoria's Obsequies .. 409
Microscopical Reproductions of the Blood and Bacteria 202
National Association for the Study of Epilepsy 569
New Year's Greeting 186
Numerous Excerpts 411
Oak Grove Hospital Calendar 404
On the 1st of July 747
Our Genial Friend, Dr. I. N. Love 192
Parthenogenesis and Christian Science 570

Post-Operative Insanity 733
Prognosis of Katatonia 575
Professional Representation in the President's Cabinet 589
Promiscuous Presidential Hand-Shaking With Uncredentiated People 724
Psychopathic Annexes and Psychopathic Hospitals 728
Psychic Transitions in Play Presentations 193
Public Neglect of American Medical Immortals 188
"Redemptioners" and Degeneracy 389
Scenes of Beauty and Homes of Health 403
Secrets of Longevity by an Octogenarian 734
Sex by Suggestion 382
Sensibility and Psychic Functions of Phagocytes 397
Skull Deformation in Infancy and Insanity 401
Slighting the Army Medical Staff 406
Some of our Proprietary Medicine Friends 735
St. Louis in 1903 724
Suicide During Adolescence 385
Surgery and the Cervical Sympathetic in Basedow's Disease 734
Surgical Operations on the Insane 737
Tea Neurasthenia 195
Tendon Reflex After Laminectomy 568
That Bizarre Conduct is not Ex-Necessitate Evidence of Insanity 738
Third Pan-American Medical Congress 199
The Aphorisms of Hippocrates 396
The Appointment of Dr. Petersen on the Lunacy Board 588
The Bioplasm Fiend 742
The Danger and Harmfulness of Patent Medicines 736
The Delineations of Feminine Fashions 740
The Doctor's Duty to Inform the People 732
The Effect of Medical Education 736
The Eye-Strain Headache. Fad and Fact 191
The Executive Ability of the Doctor of Medicine 586
The Insane Epoch and the Last Lucid Interval of Oscar Wilde 187
The Influence of Morphine on Gastric Secretion 192
The Journal de Neurologie 741
The Journal of Mental Pathology 201
The Mississippi Valley Medical Association 592
The Missing Sponge 194
The Neuropathic and Psychopathic Sequellae of Grippe 585
The Neurotherapy of Santonin 596
Theologic Origin of the Right and Wrong Knowledge Test 576
The Pan-American Exposition to be Magnificent and Unexcelled in Beauty 382
The President's Assassin 721
The President's Wound and Death 722
The Prussian Blue Treatment of Epilepsia 200
The Psychology of Clerical Ministration at the Bedside of the Sick 591
The Stylus 410
The Technical Composition 394
The Term Psychic Insult 411
The Transactions of the Section of Neurology, 13th International Medical Congress 409
Tolstoi and the Russian Physicians 742
Trained Nurses and the Insane 594
Transitory Frenzy 579
Traumatic Paralysis and Tabes 567
Wanted Statesmen for the People 407
Washington's Governor and Medical Practice 590
Watch Your Governors, Doctor 383
With Bowed Heads and Bruised Hearts 720
Widen the Airgates of the City 393
Women Sexual Invert Marriages 376

REVIEWS.

An Introduction to the Psychological Study of Backward Children—The Mental Diseases of Childhood 755
A Preliminary Communication 422
A Provisional Handbook 423
A Preliminary Communication 604

A System of Physiologic Therapeutics.. 601
A Text Book of Pathology in Relation to Mental Diseases..... 691
Atlas of the Nervous System..... 749
Atlas and Epitome of the Nervous System and Its Diseases..... 751
Bibliographischer Semesterbericht..... 422
Braithwaite's Retrospect of Medicine.. 418
Burr's Primer of Psychology..... 755
Church and Petersen..... 602
Chloralamid 422
Claude Hartland..... 754
Clinical Study of Thyroid Extract 421
De la Regenerasion..... 604
Diffuse Degeneration..... 604
Diseases of the Nervous System..... 203
Drug Standardization Again..... 419
Epilepsie..... 603
Experimental Research Showing that Uric Acid Secretion is not Regularly Diminished in the Period Preceding Epileptic Seizures..... 598
"Etidorhpa" 753
Flataw & Jacobson's Handbook of Central Nervous System Anatomy 414
1 Friedlaender, Einfluss des Typhus Abdominalis auf das Central Nerven System 602
From the Many..... 752
Irregularities of the Teeth and their Treatment..... 750
Jahresbericht..... 203
Jahresbericht Ueber Der Leistungen und Fort-Schritte..... 417
Johns Hopkins Reports, Vol. viii, Nos. 3-9..... 603
La Pratique de la Medecine Mentale—Conferences..... 602
Le Systeme Nerveux Central..... 413
Les Amoreux de la Doleur..... 600
Libertinism and Marriage..... 749
Little Talks on Astronomy..... 600
Ludwig Edinger's Anatomy of the Central Nervous System 604
Memory 414
Myelitis und Sehnervenentzündung..... 604
Ninth Annual Commencement of the Training School for Attendants..... 755
Pertinent Points on Peacock's Bromides 756
Perversion Sexuelle a Forme Sadique.. 413
Physicians' Manual of Therapeutics.... 415
Potts and Gallandet..... 603
Practical Uranalysis and Urinary Diagnosis 598
Preliminary Report..... 415
Progressive Medicine..... 604
Progressive Medicine..... 749
Progressive Medicine..... 204
Psychology Empirical and Rational..... 748
Results of Five Years' Experience with Co-operation Between State Hospitals for the Insane 205
Sajous' Annual and Analytical Cyclopedia of Practical Medicine 753
Sanity of Mind..... 413
Self-Examination 603
Senn—Principles of Surgery 600
Shaw's Essentials of Nervous Diseases and Insanity..... 756
Some Remarks on the Plantar Reflex 420
Stringtown on the Pike..... 416
Suicides et Crimes Etranges..... 412
Sulla Origin Infettiva del Delirio Acuto 412
Susceptibility to Disease..... 604
Symmetrical Development..... 421
The Argosy 755
The Danger and Harmfulness..... 604
The Digestive Power of Pepsin..... 204
The Fifth Edition of Purdy's Practical Uranalysis and Urinary Diagnosis 752
The Journal of Medical Research..... 754
The Logic of Nervous Ailment Therapy 603
The March Number..... 418
The Maryland Hospital News..... 205
The Mental Symptoms of Cerebral Syphilis 419
The Most Useful Citizen: A Study in Human Dynamics..... 599
The Physical Causes of Insanity and Death 602
The Third Edition of Church & Petersons..... 416
The Treatment of Skin Diseases with Dolomol Powders..... 756
Transactions of the Iowa State Medical Society 1900..... 418
Tuberculosis of the Testicle..... 423

THE
ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, JANUARY, 1901. No. 1.

ORIGINAL CONTRIBUTIONS.

THE EMPLOYMENT OF PHYSICAL METHODS IN THE TREATMENT OF NERVOUS DISEASES.*

By DR. AUG. HOFFMANN,

Of Düsseldorf.

(*Conclusion.*)

THE MECHANICAL REMEDIES.

Massage and gymnastics have been employed in the treatment of nervous diseases from the earliest times. The first is used especially by uncivilized peoples for the cure of disease. There have been times when both, as curative measures, have passed into oblivion; gymnastics were revived somewhat about the middle of the 16th century by Merkuriali and Verono, and in the 18th and 19th centuries were further developed and more widely disseminated by Rousseau, Pestalozzi, Nachtigall and Ling.

In Germany gymnastics were perfected by Jahn in the form of turning, but more for education than therapeutic purposes. Spies developed this educational factor to the present system of calisthenics. Therapeutic gymnastics with

*Translated by Dr. W. Alfred McCorn, Resident Physician, "River Crest," Astoria, L. I., New York City.

massage were systematized by Ling, a Swede, into remedies capable of localization and dosage by introducing combined movements of resistance and various selected initial positions.

In France massage was again brought into therapeutic use by Tissot, Bonnet, Pierre, Nelaton. Estradere's book (1863) first treated massage as an independent branch of therapeutics. Of late it has been chiefly Metzger, Mosengeil, Zabludowski, Reibmeir, Schreiber, Kleen and others, as well as a large number of eminent surgeons, who have contributed to the advancement of this mode of treatment.

Massage as employed to-day, consists chiefly of four manipulations:

1. Effleurage, *i. e.*, stroking the skin from the periphery toward the centre with the flat hand. Its physiological action consists in accelerating the circulation of the blood and lymph in the skin and superficial tissues.

2. Friction, or rubbing consists of vigorous, circular rubbing and pressure with the hand or thumb and index finger. Its purpose is to assist in the absorption of morbid growths and swellings.

3. Petrissage, or kneading. Large amounts of tissue are taken up and rolled between the hands. This serves to improve the circulation in the tissues, in the muscles particularly.

4. Tapotement, or tapping with the hand, its edge or the finger tips.

Kneading and tapping, besides having a "detergent action" are also stimulating. The muscles tapped are excited to contraction, even when no longer subject to the will (mechanical muscular excitability); pain may also be relieved by them, owing to their paralyzing sensation. They also cause cutaneous hyperaemia. When large areas are subject to massage metabolism is stimulated. A special sort of tapotement, a rapid sequence of "concussions", which are given mechanically (Ewer's concussor, Liedbeck's vibration apparatus) is also employed in nervous diseases, owing to its anodyne effect.

Therapeutic gymnastics are of a far more complicated

technique than massage. They consist of active and passive movements. As to the effect on the nervous and muscular systems by *passive* movements the muscles are alternately stretched and relaxed and changed in their mutual relations. Hence it is a sort of massage. The *active* movements, in so far as they refer to the general musculature, have, besides the mechanical effects peculiar to passive movements, a general stimulating action on metabolism. The muscle regularly exercised increases in size and strength, at any rate its state of nutrition, if it is not completely paralysed, is generally improved. The muscle becomes more plethoric, a fact on which the revulsive action of muscular exercise depends. By accelerating the circulation metabolism and the generation of heat are increased, which are beneficial to the general condition; on these effects depend the therapeutic indications.

The technique of gymnastics falls into two groups: the German and the Swedish.

German gymnastics consist merely of simple active movements, which are chiefly exercises with dumb-bells, the bar, etc. I must refer to the proper text-books for the more exact technique (*e. g.* Schreber). Anyone, who has practiced systematic muscular exercise, either at school or in the army, knows the greater part of those most useful. A fault of the German gymnastics is that the exercises cannot be so well localized and dosed as the Swedish, yet for many of the purely functional diseases of the nervous system they are especially adapted for home use, provided the movements are properly selected.

The general practitioner is scarcely able to give Swedish gymnastics. They consist, as arranged by Ling, of a very complicated system of movements, which by varying the initial positions, whose number is about 100, with very difficult uneuphonious names, are almost infinite. They are in part free movements of the head, trunk and extremities, in part against resistance from the hands of the operator. The individual movements are not materially different from those of German gymnastics, in part more complicated. The passive movements have fewer initial positions; they

consist essentially in the execution of all possible active movements of the different joints by the operator, without the patient's cooperation. Massage is included in Swedish gymnastics and not regarded as an independent branch of therapeutics.

Various ingenious appliances have been devised for mechanically replacing the operator in these complicated movements. Numerous appliances are constructed, in which the resistance is effected by means of cords with suspended weights over pulleys, rubber bands, or by brake-like (Nycander) or lever and eccentric contrivances. Of all these, Zander's apparatus constructed on the last principle, is the most commonly used. Its merit consists in being able to exactly adapt the resistance to the physiological condition. The instrument, which consists of about 70 appliances, is too expensive for general use. By simpler means Otto Thilo seeks to meet the same physiological principles by using a series of pulleys which can be readily changed to suit the purpose. A full description of these exercises would require too much space, yet in special cases, when the patient cannot be sent to a Zander institute, they seem to be useful in nervous diseases. The simple apparatus of Stanislaw Sachs, constructed of rods with movable weights, one end resting in a ball and socket joint, is to be recommended on account of its cheapness and great adaptability (Eulenburg). The physician, in case he wishes to employ gymnastics in nervous diseases, may use the German and the Thilo or Sachs methods. With respect to the numerous indications, which hydrotherapy and electrotherapy have in nervous diseases, massage and complicated gymnastics are of far less importance. In bone and joint diseases, the latter attain their triumph; in the treatment of accidental injuries special institutes with gymnastics arrangements have become indispensable. The apparatus designed for the exercise of definite muscle groups like a *rowing apparatus*, *Gartner's ergostat*, *Largiarder's arm strengthener*, several of Sachs' appliances and the like may be recommended as suitable for home use.

As to who may give massage, it may be said: In all

finer operations in which it is a matter of local effects, the physician shall give it. The manipulations of massage of the body may just as well be given by laymen instructed for the purpose, still, as in hydrotherapy, the physician should personally supervise its performance. Gymnastics should also be definitely ordered in each case and be convinced that they are properly given, when it is important that the physician understand the technique, in so far that he can give, *i. e.* demonstrate each movement.

Besides gymnastics there are several therapeutic procedures still to be mentioned, which cannot be called gymnastics strictly, yet must be included among the mechanical remedies. These comprise Frenkel's treatment of ataxia by continued exercise of coordination, called compensatory exercise therapy by Leyden, as well as the suspension treatment and similar methods.

Frenkel's treatment is based on the opinion, that in several nervous diseases, especially tabes, the disorders of motion are to be relieved by practice. In that Frenkel accepts the anaesthetic theory of ataxia in tabes, he assumes that it is possible for the patient to compensate for the want of feeling in his movements by continued and properly supervised practices. According to Goldscheider's theory the excitability is increased in certain undamaged neurons, and so the defect in the degenerated tracts is compensated. The performance of these exercises is comparatively easy, the physician must merely familiarize himself with their purpose and method. The kind of exercise depends on the degree and location of the ataxia. Treatment of the ataxia of the upper extremities absolutely demands the employment of simple appliances, while in that of the lower extremities Frenkel does not use any apparatus. At Leyden's clinic (Jacob), as well as at the Moabite Hospital (Goldscheider) certain simple appliances are used in the treatment of the lower extremities. Past experiences speak in favor of this method, yet it must not be forgotten, that it certainly requires the expert and personal supervision and direction of the physician. The results are not very promising in

lowered muscular tone, flaccidity of the joints; overfatigue is to be avoided under all circumstances; these movement cures are also contra-indicated with exhausting baths. As this movement cure has generally met with favor and not as yet succumbed to the Moloch"suggestion", a more exact description of its technique will be proper, it never having been definitely described in English.

The movements are practiced in part in bed and in part while standing and walking. Frenkel insists on having the exercises in bed made by all patients, even the mild cases. The patient lies with his head somewhat elevated, so that he can see his legs and then successively makes the following movements at the physicians discretion (R. Hirschberg):

1. Flexion, extension, abduction, adduction of one foot, then of the other, followed by the same movements of both feet together.

2. Rotation of the foot at the ankle joint, the toes describing a circle.

3. Flexion of the knee, keeping the thigh in a perfectly straight line with the body.

4. Flexion of the thigh on the pelvis with the knee bent.

5. Adduction and abduction of the thigh with the knee flexed, the foot resting on the mattress and the pelvis fixed. This movement must be executed in four parts: adduction, back to the median line, abduction and again back to the median line without jerking.

6. Elevation of the leg as a whole, without zig-zag movements.

7. Adduction and abduction at the hip with the leg elevated.

8. Rotation of the elevated leg at the hip, the foot describing a circle.

9. With the legs extended and together require the patient to sit up in bed, without supporting himself on his hands and without flexing his legs.

10. The same movement with the patient lying perfectly flat.

The purpose of these exercises is to teach the patient to again control his muscular contractions, and so be able to perform all these movements with normal regularity. At first the patient must attentively watch his movements, but after he is able to perform them quite accurately, require him not to look at his legs during the exercises, and finally he must try to perform them with his eyes closed.

The exercises in bed form the first part of the treatment. With patients who are unable to walk, the exercises in bed must be continued longer of course, than with those who can walk. Even in a high degree of motor incoordination most patients are benefited by the exercises.

Exercises in the upright posture. For these select a large, well lighted room, with little furniture and a not too smooth, uncarpeted floor. The patient is to be lightly clad, women should wear a sort of gymnasium suit, for in the beginning of the treatment it is very essential that they see their legs.

Exercises in static equilibrium. The patient stands erect, the physician at his side. If he is unable to stand alone, support him by means of Frenkel's belt about his waist and provided with hand loops. If he can stand by the aid of a cane, permit him to use it at least in the beginning of the treatment. The proper exercises are:

1. Stand motionless, the feet somewhat separated, the hands at the side. Maintain this position for 1-2 minutes.
2. Repeat with the feet together.
3. Stand with the feet separated and perform easy *gymnastic* exercises with the arms (extending them forward, upward and backward).
4. Repeat with the feet together.
5. Bend the body forward, to the left, backward and to the right; describe a circle with the head.
6. Repeat with the feet together.
7. Stoop over slowly and straighten up again.
8. Repeat with feet together.
9. Bend the body forward so as to touch the toes with the tips of the fingers.
10. Repeat with the feet together.

11. Raise on the tips of the toes.
12. Repeat with the feet together.
13. Squat down by flexing the knees.
14. Repeat with the feet together.
15. With knees flexed perform the gymnastic exercises with the arms.
16. Stand on one leg.
17. Stand on one leg with knee slightly bent.

Exercises in locomotion:

1. Stand erect and slowly advance one foot the length of a step. Bring it back to its place quickly. Carry the same foot forward, then to its first position. Move the foot to the side the length of a step and then back to its place. To have these exercises performed with precision, it is well to outline with chalk the exact place the patient should place the foot. These exercises are to be repeated alternately with each foot.

2. Place one foot before the other in a straight line and maintain equilibrium.

3. Take twenty steps forward, planting the feet gently and touching the floor with their whole surface. The patient should count his steps aloud.

4. Walk a crack.
5. Walk backward.
6. Walk sidewise.
7. Walk with long strides.
8. Walk with knees bent.
9. Walk on the tips of the toes.
10. Walk at command, stopping and changing the direction quickly.
11. Walk over obstacles. Place pieces of wood on the floor at equal distances. The patient must step over these without disturbing them.
12. Rise from a chair without the aid of the hands; sit down slowly without dropping.
13. Practice ascending and descending stairs, with and without holding to the rail.

Exercises while sitting:

1. Raising the foot on the heel and then on the tip of the toes.

2. Touching definite points with the tip of the toes.

3. Tracing circles, rectangles, octahedra with the tip of the toe.

4. Stop swinging balls with the tip of the toe.

For the treatment of ataxia of the upper extremities Frenkel has prescribed a series of movements, which are mostly effected by suitable appliances. These will rarely be required in general practice.

"They are individual movements of the fingers and hands: flexion, extension, spreading. Touch the several finger tips with the thumbs, crossing the fingers at the same time. Trace outlined figures. Guide a pencil in a small furrow, finally along an edge. Draw lines, circles, figures on paper from copy. Strike at suspended objects. Catch swinging balls. Touch several blocks or spots on a board in different order at command. Stick pegs into holes. Sort splinters of wood or pieces of money. Finger exercises like playing the piano or sorting money. Finally writing and drawing exercises". (Erb).

Goldscheider very earnestly recommends these exercises, as Frenkel did at one time. Jakob, who has constructed an apparatus for the lower extremities, similar to Frenkel's for the upper, believes, like Frenkel of late, that the treatment should be confined to special institutions. Owing to the simplicity of the several exercises, which I have almost completely enumerated, the procedure seems to me well adapted for general use, yet only by frequent repetition of the exercises are permanent benefits to be expected. Of the 4 cases I have treated in this way, 3 at least are greatly improved.

Nägeli has specified a number of "manipulations", which he has perfected to a therapeutic method. Its principle is a forcible stretching of the diseased or painful parts by the operator's hands, which must be continued for a certain time. They are recommended for the most diverse conditions and act in part by promoting the circulation, in part by pure mechanical pressure and traction. For details

I must refer to his monograph, published in 1894. A part of their effects depend on suggestion, while in many cases a material action due to the nerve stretching, facilitated circulation, etc., is not to be denied. I have often used them, but without particularly encouraging results.

Suspension is another operation useful in the treatment of nervous diseases, which, like the above has been used in a certain class of cases of diseases of the spinal cord. The appliances are simple.

Sayre's suspension apparatus is used, in which the axillary braces are replaced by Mitchell's elbow supports. Formerly the patient was swung free from the floor, but this has been abandoned of late and suspension preferably given sitting, which is much pleasanter for the patient, the duration of each treatment can be materially lengthened and any danger that might be incurred by the former method is avoided. For measuring the amount of traction used many cumbersome appliances (Sprimon's by Bechterew and Worotnysky) have been used. The simplest way of measuring the force employed is to place a spring balance between the pulley and the cross bar (Aug. Hoffmann), which I do not increase over 40 kg. The duration of the sitting at first is two minutes and may be increased to 20, yet I have found those of 6-7 minutes the most beneficial, longer applications occasionally causing cerebral congestion and great fatigue. Suspension must always of course be given and supervised by the physician and is compatible with general practice. It is contraindicated by organic changes in the vascular system and acute spinal and meningeal processes. The favorable effects frequently observed are said to be due to the facilitated circulation in the vertebral canal. Giles de la Tourette and Chipault have recently devised a special kind of "spinal cord stretching" by forcible flexion of the spinal column. By experimental investigation they have become convinced, that by vigorous flexion the spinal cord and cauda eguina are actually stretched. The extension amounts to about 1 cm., and affects the posterior parts of the cord especially. In giving it the authors place the patient on a table with a back, to which the pelvis is

strapped and the thighs to the table, then by a system of braces fastened to the upper part of the body it is drawn well over the thighs by means of a set of pulleys. The traction force, measured by a dynamometer, varies between 60 and 80 kg. The results of this treatment are greatly extolled by its originators, who claim there are only 25% of failures with it, against 35-40% with suspension. My own experience is limited to one case, in which 8 sittings effected no improvement, but rather the ataxia became much worse. Yet the functions of the bladder were benefited. In any case it is not advisable to use such heroic treatment in ordinary practice. The method must be further tested before it is possible to decide whether it is to be given or denied a place among therapeutic methods, for Eulenberg is the only German observer who has spoken well of it.

The flexion methods employed by Bonnuzzi, Blondel and Benedikt for nerve stretching may be passed over, for their effects are uncertain and they are not without danger to the patient, as well as unsuited to general practice.

SUGGESTION AND HYPNOTISM.

Rossbach places suggestion and hypnotism among the physical remedies, and hence they may be spoken of here, although as *psychical* remedies they have a very special position. Employed by the laity since the last century as a means of cure under the names of magnetism, Braidism, their introduction into therapeutics really dates from the appearance of Bernheim's book on suggestion, as well as since Charcot's exhaustive studies of hypnotism. If the question as to the reality of the phenomena of hypnotism in the positive sense may to-day be regarded as settled, especially after Haidenhain's experiments, still the matter of its employment in practice is the subject of controversy. While on the other hand there are brilliant panegyrists, who believe they are able to favorably influence by hypnotism even "the secreting glands of the intestine, on the other there are those who are skeptical of its therapeutic action. For

ethical reasons F. Schultze regards the use of hypnotism inadvisable.

My opinion, formed after employing it therapeutically for years, is that hypnotism is well adapted to act favorably on some symptoms as well as to radically benefit many cases of hysteria, particularly in children. According to Goldscheider's theory, the attention directed to a nerve arc will alter the "liminal value" of the neuron, as he calls it, and so explains the real action of suggestion. But in the majority of cases the result is not permanent. The effects of hypnotism may also be sufficiently attained by well directed suggestions while awake. In morbid states, where we have a very strong autosuggestion as in neurasthenics, hypnotism promises the most. The procedure as generally practiced to-day is simple. The physician must act with perfect confidence and not betray a trace of doubt as to any of his assertions, a preliminary condition, to whose non-fulfillment the failure to hypnotize is often to be ascribed. The patient is placed in an easy chair or on a couch in the quietest possible room, not too light. Either previous to the subjective phenomena his attention is called to the heaviness of his eyelids, etc., and then for a time he may fix his eyes on some object held slightly above them, or during the hypnotization the phenomena of sleep may be suggested. Bernheim gives the following directions for hypnotizing.

" 'Look at me closely and only think of going to sleep. You will soon feel that your eyelids are heavy, then your eyes are tired; you already blink, your eyes are already suffused; you no longer see distinctly, now your eyes close.' With some this occurs at once, they close their eyes and go to sleep. With others I must repeat these assertions and earnestly; I add some manipulation, which may vary as to kind. I bring, *e.g.*, two finger of my right hand before the person's eyes and let him gaze at them, pass both hands downward many times over the eyes, or request him to look me steadily in the eye while at the same time I try to direct all his thoughts to the idea of going to sleep. I do this somewhat in this manner: 'Your lids close, you cannot now

open them; your arms and legs feel heavy; you no longer hear; your hands feel as if they are paralysed; you can no longer see, you are going to sleep,' and I then add in a commanding tone: 'Sleep!' This order is often decisive, the patient closes his eyes, sleeps or is at least suggestible."

The patient may be hypnotized in this or some similar manner. During the hypnotic state the necessary suggestions may be made, *i.e.* the patient is told in an impressive voice of the phenomena that are expected on awaking, as the remedial action of hypnosis, like the disappearance of pain, etc. If the patient cannot be hypnotized the first time, it will perhaps succeed on the second effort, but do not forget that every failure to hypnotize essentially lessens the patient's respect for the physician's authority, and so his further efforts are regarded with greater mistrust. From this unpleasant fact it can be readily seen that the use of hypnotism has its own shady side for the physician. Excitable, readily and profoundly susceptible patients should only be hypnotized before witnesses.

As light sleep usually suffices for remedial purposes, the inability to open the eyes when told they cannot, profound hypnotism as a rule may be dispensed with. That the practice of hypnotism for remedial purposes should be left to the physician alone is shown by the many pernicious after effects from awkward application.

Under all circumstances try to get along with ordinary suggestion, which experienced physicians have employed for ages, and only use true hypnotism in special cases.

THE EMPLOYMENT OF PHYSICAL REMEDIES IN SOME DISEASES OF THE NERVOUS SYSTEM.

After the preceding description the employment of physical remedies will offer no insurmountable difficulties to physicians outside of institutions, who are familiar with their technique. It has been shown how, under certain conditions, when complicated apparatus and appliances are needed and are not to be procured, they may be improvised by the simplest means, for a greater part of the practical methods can be given the patient with unpretentious

instruments. Of course knowledge and dexterity are required to thus attain really beneficial results, as well as a somewhat greater sacrifice of the physician's time.

With regard to indications in detail, it is evident after what has been said of the physiological action of the several methods, that no general scheme, applicable to every case, can be formulated. It is a peculiarity of these methods, that for each case a special program is demanded and to be modified according to the patient's individuality. It is common to all, that their employment must be free from all routine; to treat two persons with the same disease exactly alike, will almost always result in failure. As in internal medicine, individualization is and ever will be the physician's chief art, is especially true of the employment of physical remedies. All that is essential has been mentioned under the several headings and I will now take up the various forms of nervous disease and the physical remedies applicable to them, where all these assertions hold good, if the physician selects, varies and combines them properly, according to the nature of the case. These are matters taught by practice and experience. Make it a rule in every case to begin always with the mildest application and as the patient bears it, pass on to the stronger. So at least no harm will be done and in their more frequent use the certainty of judgment will be made keener.

If I classify the nervous diseases in the usual way, the employment of physical remedies is to be considered in:

1. Diseases of the peripheral nerves.
2. Diseases of the spinal cord.
3. Brain diseases (except mental disorders).
4. General neuroses.

DISEASES OF THE PERIPHERAL NERVES.

The diseases, respectively morbid phenomena, of the peripheral nerves are divided into those of the *sensory* and those of the *motor* nerves. The first are the neuralgias, anæsthesias and paræsthesias, the latter the spasms and palsies.

In *neuralgia* the physical remedies have been used

successfully for a long time. With respect to the employment of hydrotherapy, warm compresses and packs are anodyne, while the action of intense cold is beneficial under certain conditions. Runge and Romberg regard cold to be contraindicated, yet others, like Erb, Edinger, Debanvais and Reddard take the opposite view. In neuralgia they recommend the use of intense cold to lessen the excitability of the nerves. For this purpose is particularly recommended, besides the ice-cap and cold douches, those remedies recently introduced into therapy, which produce cold by their rapid evaporation. Besides ether spray, these are chlormethyl and chlorethyl, the first being chiefly used in neuralgia of nerves distributed to a large area (sciatica, Steiner), the latter to superficial nerves. Both remedies are obtainable in tubes, *i. e.* syphons, from which they may be sprayed on the skin. The other methods of hydrotherapy are less used, only in *sciatica* packs, warm baths of long duration, brine baths have been beneficial. This is due to the general improvement of metabolism, as well as facilitation of the circulation in the skin and so unloading the deeper vessels.

Doubtless electricity is the most effectual means for combating neuralgia. Those admit this, who merely recognize a suggestive action in this therapeutic measure. The mode of employment is preferably the stabile application of the anode to the pain and pressure points. The electrode should not be too small, daily sittings of 320 minutes are to be recommended. On the other hand a vigorous stimulation by the faradic current is recommended, using a flat or pencil electrode (Frankl-Hochwart). The effect of the galvanic current is due in part to its polar action (anelectrotonus), in part to the "cataleptic", as well as to its action on the vasomotors. Both currents "inhibit" the excitement of the neurons. The weak galvanic current is always to be selected. The strong faradic with rapid interruptions.

Gymnastics now and then act well in neuralgia of the extremities, especially in its chronic stage. Old neuralgias may be treated with massage, particularly when due to pressure from muscular infiltrations. As the veins of the

muscles are connected with those of the nerves, massage will always aid in unloading the circulation of the nerve trunks.

Nägeli's manipulations, particularly in neuralgia of the head, are to be considered; they facilitate the circulation.

Anaesthesias and *paraesthesias*, as results of peripheral disease, yield to treatment by warm, local baths, compresses, as well as by cutaneous stimulation with the faradic current of moderate intensity. The anode treatment with the galvanic current, as well as faradic baths, may be tried.

Spasms confined to single nerve areas form a frequent, but often unfortunately a very thankless incentive for the use of the physical remedies. Warm baths (32-35°C) for 20-40 minutes, or warm compresses and packs may be tried. Now and then I have had good results from vigorous cold douches, as in a case of spasm of the muscles of the shoulder.

Electricity has always been recommended for localized spasms. The point of origin of the nerves, whose area of distribution is affected with spasm is subjected to a moderate current (2-7 MA) from quite a large anode (25-50 scm.) for about five minutes. The cathode is placed on the sternum; at the conclusion of the treatment the anode is removed after the current has been gradually reduced. Strong faradic stimulation is rarely beneficial. Massage and special gymnastics act very uncertainly, on the contrary, as voluntary movements occasionally excite spasm, they are to be avoided in most cases. Still a trial of exercise therapy may be made. No permanent results are to be expected from suggestive treatment.

Palsies from destruction of continuity of peripheral nerves form an important chapter. It may be questionable as to the way physical remedies act for restoration of a nerve from its ganglion cell in regeneration of the axis cylinder, but it is certainly established by unbiased observations and experiments, that by the use of physical remedies curative results are more quickly attained, which directly prove their favorable action (E. Remak).

While hydrotherapy is mostly employed in the form of compresses or long lukewarm baths, electrotherapy offers a rich, fruitful field of labor. At any rate for estimating the gravity of disease of the peripheral nerves, electricity has become indispensable from the reactions discovered by Erb and v. Ziemssen.

For the purpose of diagnosis in paralysis of the motor nerves an electrical examination of the area supplied by them is imperative. As already stated, the reaction of degeneration occurs in severe disorders of the primary neurons. The occurrence of the reaction of degeneration is also extremely important in prognosis, for palsies with the reaction of degeneration require months at least for their recovery, while those without it generally improve materially and recover within a few weeks. The curative effects of electricity, which were somewhat overestimated after Duchenne's and E. Remak's researches, must to-day claim certain recognition from the severest critics. E. Remak's recent communications on electrical treatment of radial palsies are evidences, that it favorably influences the period of recovery. The methods, which may be used for the treatment of peripheral palsies, are the localized applications of the faradic current, as well as the stabile and labile cathodal treatment with the galvanic. The current intensity of the latter should be 5 MA with an electrode of 9 scm. The paralysed muscles are stroked with it, or it is placed for a time (2-3 minutes) at the point of the lesion. This treatment may be varied infinitely, yet it is best to follow a definite method. I have usually succeeded with the above method used for 6 minutes on alternate days. Under certain circumstances the treatment of severe paralysis must be continued for months. While it often seems as though the beginning of restitution is not essentially accelerated by electrical treatment in severe paralysis, yet it is very rapid after it once begins. The employment of the galvanic current, to which under all circumstances the greatest effect is to be ascribed, in severe palsies, the only one, prevents further degeneration of the muscles. The effect of the current is explained by its "accelerating" and exciting action,

thus relieving the fatigue and weakness, as well as its so-called catalyptic action.

Simple and *multiple neuritis* deserve special mention. Electrical treatment is to be used after the acute symptoms have subsided. Only the galvanic current is proper, for the manifestation of pain and irritation after the use of the faradic prove that it is injurious.

DISEASES OF THE SPINAL CORD.

Diseases of the spinal cord are eminently suited to physical therapy. First of all the most common spinal disease, "tabes dorsalis," is of special interest in treatment. All that is said of its treatment, may be applied, mutatis mutandis, to the other chronic diseases of the cord. The *acute* diseases of the cord are rarely subject for active therapy. In the secondary stage physical treatment first becomes affective for the same reason as in *chronic* diseases. In *tabes*, particularly in the so-called second stage, that of beginning ataxia, the requirements for a consistent physical treatment exist, and it is almost strange that this time is denoted as the most favorable to the action of this celebrated remedy, from which it is to be concluded with great probability, that the period of beginning ataxia is the one most favorable for *spontaneous* remission. Be that as it may, from this time on in chronic tabes, the question will always present itself to the physician: "What else is to be done?" Such patients cannot spend their life at baths and sanitariums, but must be treated at home. So in this disease it is especially incumbent on the physician to be familiar with the physical remedies and their use, and to employ them according to the state of the case. While part of the cases have a tendency to run an acute course, which is especially frequent in less well situated surroundings, from inability to arrest the disease in its beginning, our methods of treatment, like all others, leave us in the lurch, yet in chronic cases great benefits are to be derived from them. Hydrotherapy is effectual in the employment of especially mild procedures: cold friction and half baths. The latter may be given daily for a long time, and at their conclusion

cool effusions over the back are requisite. The use of warm and steam baths is inadvisable. Many investigators are not convinced of the action of electrotherapy in chronic diseases of the cord, but Erb, who has the most experience in the matter calls electricity "*a powerful physical remedy*" in his latest discussion of the treatment of tabes. While there are no definite ideas as to the way a diseased cord is effected by the galvanic current, benefit is often derived from it. The treatment consists in giving the current with an electrode 6x12 cm., placed on the sternum or back of the neck, one equally as large about four inches below it on the neck, which after one minute is pushed downward its width three times. A case of tabes has been instructive to me as to the effect of this treatment, and in which I have employed no other than that described. The intestinal crises were especially benefited. As the case seems adapted to demonstrate the direct curative action of electricity on the central nervous system, it may be briefly reported.

L., 40 years old, a merchant for 13 years, after having had "sciatic" pains in his legs for several years, became troubled four years ago with severe and very sudden attacks of diarrhœa, which came on so quickly, especially at night, that he could not get up soon enough. This gentleman, who had kept account of his bowel movements for three years, had not been free from these tormenting attacks for more than seven days on the average during this time, in spite of the most diverse bath and dietetic methods,—one ordered 14 meals a day—suggestive and medical treatment. The tabes had been overlooked by all who had examined him. When I first saw him there was slight difference in the pupils and fixity. Absent patellar reflex, as well as slight ataxia, was also to be observed, and he had had palsy of the eye muscles for a year. As all aggressive measures, especially hydrotherapy and baths, had shown that any intense physical excitement increased the attacks, I was led to treat him expectantly at first, and employed the mildest remedy: galvanization of the back. Immediately after beginning the treatment an interval of more than forty days occurred, then five weeks followed, during which there

were several relapses, but from that time on under continuation of the treatment, which was later interrupted by a six weeks' sojourn at the baths of Nauheim, a period of 280 days elapsed without a single attack of diarrhœa. Here is a case materially and permanently improved in a scarcely perceptible way by the use of electricity, on which suggestion had previously acted intensely.

Besides galvanization of the cord, which may be used for a long time without injury to the patient, although in most cases it is advisable to dispense with it for a time after 4-6 weeks, the faradic treatment, first used by Rumpf, is to be recommended, which consists in applying to the patient's back and legs the faradic brush for 10-20 minutes with a current able to excite powerful muscular contractions. Thus will be attained the reflex effects in the cord in the sense of facilitation and inhibition (Erner and Goldscheider), as well as vascular dilatation. Such intense stimulation of sensation in the legs is often beneficial in tabes, as I observed that every time a patient's sensation was carefully tested by many pin pricks, he was able to walk better. How large a role suggestion plays cannot be stated. A local galvanic or faradic treatment often benefits the laryngeal, gastric and intestinal crises of tabes. Massage is occasionally beneficial by its action on the nutrition of the muscles, especially when they are very flaccid and weak. Gymnastics, in so far as they consist of vigorous exercises and resistive movements, are generally inadvisable in incipient ataxia. Now and then favorable results from such methods are reported, yet as Frenkel, Leyden and Goldscheider state, the tabetic is inclined to use more strength than required in every movement and so is injured by the exhaustion occurring in these exercises, owing to the occasional absence of the sense of fatigue. It is entirely different with the Leyden-Frenkel *compensatory exercise therapy*, according to generally accepted views, as well as in advanced cases. Suspension, in the mild form now generally used, yields decidedly favorable results. I know of a large number of cases benefited for many years, as I reported to the Society of Natural Research in Braun-

chweig. Improvement of the ataxia, the bladder trouble and pains are to be thus attained. I have seen favorable results in chronic myelitis. Forcible stretching of the cord, according to Gilles de la Tourette is advisable in general practice. The use of support jackets must be left to expert orthopœdic specialists.

In all chronic diseases of the cord it is of prime importance, that the methods be changed, baths at Oeynhausen, Nauheim, etc., may, under certain conditions, be replaced by artificial aerated baths at home, while careful observation of the patient, regulation of the diet and mode of life must be kept in mind especially.

Of the acute diseases of the cord, infantile anterior poliomyelitis is to be especially mentioned, which demands the use of physical remedies in its secondary treatment. I would advise beginning 8-10 days after subsidence of the acute symptoms with labile application of the cathodal galvanic current to the palsied muscles, by placing an indifferent electrode of 5x10 cm. over the presumed lesion, also lukewarm baths daily or every other day and, if the patient's intelligence permits, active and passive gymnastics. The two cases, in which I began the treatment very early (in the first week), the first with complete monoplegia of the right arm, the second with total paraplegia of both legs, recovered *without any defect*, a result, which has led me to begin the treatment as early as possible. In the later stages the treatment must be mostly orthopoedic, which, supported by electricity, gymnastics, especially those of Thilo, and massage, often attain only indifferent results.

The diseases accompanied by muscular atrophy are still to be considered: spinal, neural and myopathic atrophies, respectively distrophies. Owing to their progressive character the treatment is purely symptomatic and conservative. Galvanization and local faradization of the diseased muscles seem to benefit their nutrition and so arrest the disease. Now and then massage and gymnastics are beneficial, yet exhaustion is to be avoided.

BRAIN DISEASES.

The brain diseases suited to treatment by the physical methods are the hemiplegias especially, whether due to infantile, cerebral paralysis, embolism, thrombosis or cerebral hemorrhage.

In the acute stage of these diseases, physical treatment, except the ice-cap, is out of the question, but after 5-6 weeks, when the patient is convalescent, they are proper. Of hydrotherapeutic procedures, luke-warm baths only are to be considered,during which a cold compress is to be kept on the head. Further treatment is for the special purpose of restoring and increasing the functions of the muscles and nerves. For this electricity, gymnastics, as well as massage, are especially adapted. Galvanization of the head, once so often recommended, which consists in placing a 7x14 cm. anode on the forehead, an equally large cathode on the neck, with a current intensity of not over 2 MA, and continued not more than 3 minutes, I consider harmless, yet of little use. More is to be expected from local treatment of the muscles and nerves of the palsied extremities with the faradic or galvanic current in sittings of 5-20 minutes daily or on alternate days. Besides the relief of the symptoms of congestion, the counteraction of beginning contraction is also to be attempted by various passive and, if possible, active gymnastics, whose administration may be left to a relative after receiving full instruction.

In the treatment of mental diseases the use of lukewarm baths is to be considered, particularly in the mild forms of melancholia, suitable for home treatment under certain conditions (see Prof. Ziehen's Treatment of Melancholia; *American Journal of Insanity*, Vol. LIV., p. 543), yet even when circumstances permit, it will usually be better for the physician to send these patients to a special institution. For if convalescence does not occur after a time, the determination for a change of residence is always harder, and the patient and relatives are disappointed. Only a physician well versed in psychiatry should undertake, in my opinion, to treat the mildest forms of mental disease at home. If he is not, he should secure at least the advice of a

psychiater, to escape the danger of having overlooked something, if the disease proves to be periodical (see Dr. Hoche's paper; ALIENIST AND NEUROLOGIST, Vol. XIX., p. 193) and relapses occur.

GENERAL NEUROSES.

The so-called functional neuroses, whose anatomical basis is unknown, especially *neurasthenia* and *hysteria*, form a special domain for the physical remedies. In these diseases suggestive influence may be given the most credit for curative effects, yet it is at least known that hypnotic and purely suggestive treatment attain permanent results only in the rarest cases, while properly conducted hydropathic, electric and mechanico-therapeutic measures very often improve and permanently cure many cases. And quite often it is these methods, where only a slight external effect is perceptible, *e. g.* galvanization with weak currents, which, according to all that has been said, should have the least suggestive action, that often attain the greatest success in functional diseases, greater than those procedures combined with the most mysterious and striking phenomena, *e. g.* Franklinization (Friedlander). If suggestion is especially decisive in the cure of these diseases, so one should succeed either with hypnotism, *i. e.* suggestive treatment, or that combined with the greatest possible display of showy instruments, for acting more on the mind and ideas of the patient. Yet both have been in no way satisfactory; the results of purely suggestive treatment are neither so alluring, that other remedies should be abandoned, nor does the employment of some complicated, striking method offer any demonstrable advantage.

We do not know the anatomical basis of these diseases, but may assume they consist of changes in excitability (liminal neuron, Goldscheider), perhaps also in the structure or chemistry of the nerve cells, respectively neurons. These changes perhaps lead to objective disorders, exaggeration of the reflexes, pupillary phenomena (A. Westphal), further to changes in the circulatory organs, which often become a serious factor, as well as frequently to severe disorders of

the general condition. As often as I have tried to benefit these conditions by hypnotism, as I have for years, I have never been able to attain more than temporary success. Simple psychical treatment is able to accomplish much under certain conditions, yet not as much as when supported by physical and medicinal remedies.

That psychical treatment is still of the greatest importance is evident, confirmed by the fact, that the "liminal neuron" may be changed by psychical irritation (Goldscheider). To this psychical treatment belongs chiefly the most careful examination, as well as the avoidance of everything that is apt to make the patient anxious and especially destroy his confidence, be it in the physician, who advised him, or in the one who is to undertake some special treatment, requirements, which are alas too often neglected, to the patient's injury. When the value of a remedy is subjected to discussion, a justified doubt expressed as to its action or employment, if only by a shrug of the shoulders the want of confidence in the simple remedy is shown, it is seriously damaged for the neurasthenic under all circumstances. This practical side of comprehending the value of physical remedies must be the rule of action, and not whether this or that remedy only acts suggestively in certain cases, but if it will only benefit the patient, it serves both the patient and the physician. All else are purely scientific and theoretical questions, which must be kept out of the sick room. If I have here given psychical treatment a prominent place, it shows how highly I esteem it. That it must run like a bright strand through the use of every remedy, how it must be adapted to the individual and often in the choice of a curative method is decisive, if we individualize, are facts always to be considered.

Of the physical methods, hydrotherapy is first to be considered, and cold morning frictions are to be especially employed. At first they are to be given at moderate temperatures and gradually made colder, if well borne. They have an invigorating and refreshing effect, rousing the patient's energy. The wet pack is a sedative. Insomnia is often benefited by it. But half baths, whose action may be

greatly varied by the temperature used, the length of their duration, as well as by the mechanical procedures accompanying them, are very useful in neurasthenia and hysteria. These methods, in part sedative, in part exciting, form a very special adjuvant in the treatment of such patients. In those weak and debilitated exciting measures must be avoided at first. Besides general treatment, symptomatic procedures are needed to combat pronounced local symptoms. Cold sitz baths of 8-29°C. for 5-10 minutes cause congestion of the abdominal organs and so unload the others, as well as an adjuvant to digestion and sexual potency. For sexual irritability warm, long continued sitz baths are indicated. Short, cold foot baths, as well as other cold stimuli to the feet (Kneip treatment) serve as derivatives in congestions of the head so common, and also as a general invigorant of the whole nervous system. The psychrophore is indicated in states of sexual weakness, spermatorrhoea, pollutions nimi. In this and similar ways various localized troubles are treated symptomatically. Saline, as well as carbonic acid baths are indicated under certain conditions. In congestion of the head do not fail to counteract the hypostatic, first of all bathe the face and neck with cold water, in severe cases an ice-cap or cold compress may be employed.

Electricity is especially useful in the treatment of functional neuroses in sanitariums. Beard and Rockwell introduced general faradization, *i. e.*, the application of the faradic current to the whole body, whose intensity depends on the sensitiveness of the several cutaneous areas, as well as central and general galvanization. Both may be used. Sleep and the general condition are often benefited by their frequent employment. Galvanization of the head with weak currents D=0 5-6:90, chosen according to the patient's individuality, for ½-3 minutes, relieves many cases of cerebrasthenia. According to Löwenfeld in brain anemia arrange the electrodes so that the cathode is on the forehead and the anode in the neck, or inversely. Galvanization of the neck is very often recommended and even by Möbius (especially in Basedow's disease, where it seems to be

extremely beneficial in many cases). The treatment of states of sexual excitement, as well as of depression, by localized currents is often commended. One pole of 18-25 scm. may be placed on the perineum, or over the symphysis, or introduced in the urethra in form of an insulated bougie provided with a metal tip. Both currents may be employed externally, only the faradic internally. The treatment of dyspeptic disorders by electrization of the stomach seems to afford favorable effects in cases with anomalies of the gastric secretion; constipation may also be treated with electricity. The abdominal walls are energetically faradized by two electrodes, both placed on the abdomen or one introduced into the rectum. The faradic pencil is often very beneficial in relieving hysterical palsies, whatever their location, whose effect surely depends on its facilitating and suggestive action on the will, and this method of attaining a suggestive effect may often be employed as the most practical. It is to be stated, that it is not necessary to produce pain, but merely the idea of effecting a cure. The latter is suggestively effectual.

The employment of electrical baths is to be mentioned, which in hysteria and neurasthenia have a general tonic action, similar to general faradization.

Massage and gymnastics are symptomatically indicated in states of muscular weakness, and form a part of the Weir-Mitchell and Playfair rest treatment of the neuroses. It consists of forced nutrition according to definite rules, and the patient is kept in bed and isolated, milk forming the special article of diet. Still the nutriment must be suited to each case. At first the patient is not to talk or have any mental occupation, while the food is daily increased as much as possible. Besides increasing the amount of food, metabolism is facilitated by general massage, passive gymnastics, localized faradization. After one to two weeks active gymnastics are gradually introduced and later mental occupation, until the patient returns to his usual mode of life. This treatment, which often effects an enormous gain in weight in a short time, depends essentially on suggestive action, besides the improvement in the general physical

condition. It is not a specific for nervous diseases, only for emaciated and debilitated individuals, and its employment demands a careful selection of the cases.

Gymnastics may occasionally be advantageously prescribed to overcome the apathy often found in these patients. The method depends very essentially on endeavoring to promote the energy of innervation and general vigor of the muscles. Young, vigorous persons may be benefited by German turning, calesthenics (Schreber) offer a multitude of exercises, which may be selected according to the purpose of the gymnastics and their symptomatic action, in case it is a matter of constipation, revulsion from the head, etc. Hence, according to the effect desired, one of the many gymnasium appliances may be prescribed, like the rowing apparatus, Sachs', etc. The Zander gymnastics are little used in neurasthenics, owing to the complicated apparatus and the noise, dust, etc. incident to their use. The routine employment of this treatment is to be guarded against in weak, overworked and fagged individuals. According to my experience the state of exhaustion will often be only intensified. Whereas moderate indulgence in sports, like riding, rowing, bicycling may be permitted under certain conditions, the patient being thus gotten into the open air.

Of the functional neuroses the traumatic are still to be specially considered, in which physical remedies are employed along the same lines as in neurasthenia and hysteria. Epilepsy is occasionally benefited by mild, cold water treatment, by lukewarm half baths and friction combined with the other essential remedies, also under certain conditions cautious galvanization of the head, neck and back may be given, yet no great benefit is to be expected. In chorea warm baths have a sedative action, cautious gymnastics are occasionally able to relieve the restlessness, yet as we have more effectual means, we need not promise ourselves very much from the exclusive employment of the physical remedies. Tetanus, myoclonia, myolonia rarely indicate the use of physical remedies. In paralysis agitans good results are often attained from warm baths, and electrical baths in particular

(Erb). Electrotherapy is of no special benefit and only acts in a suggestive way, like the mechanical remedies. Suspension, formerly recommended in paralysis agitans, now has no advocates. Of the vasomotor, trophic neuroses *Basedow's disease* and *migraine* are to be mentioned. That Basedow's disease is often benefited by electrical treatment has been stated, also friction, packs and invigorating general treatment have good results. Gymnastics may occasionally be beneficial, if cautiously employed, yet suggestion here plays a part, if trifling. Migraine is occasionally benefited by galvanization of the neck, also by friction and sitz baths, while revulsive foot baths are also indicated.

A number of diseases are called occupation neuroses, which are generally observed after and during excessive demands on certain groups of muscles in certain unilateral functions in predisposed individuals. Neuralgia, cramps and palsies are observed. The therapy of these conditions agrees with that in diseases of the peripheral nerves. *Occupation cramps*, particularly writer's cramp, have special importance. Complete recovery from this very stubborn disease is rare. Massage, gymnastics, exercise therapy (Goldscheider) of the affected extremities are recommended by many as especially effective, as well as treatment with the galvanic current, applied to the muscle groups affected by the cramps. The faradic current is now and then recommended for local treatment. In this, as in all convulsive diseases, whose exact localization we do not know, the therapy is in the dark. It is extremely probable that all convulsive diseases have a central, if not cerebral, localization, hence in their treatment that of central organs, respectively general treatment, is never to be neglected. A case of writer's cramp of 20 years standing in a gentleman of 52, treated by celebrated masseurs, led me to think a great deal about the localization of this disease. It entirely prevents him from writing. He also has arteriosclerosis with myocarditis, and in the summer of 1895 had a mild stroke of apoplexy, causing a temporary paresis, respectively weakness, of the right side of the lower part of the face, as well as of the arm and leg of the same side. The

paresis almost completely disappeared from the arm and leg, but what was the strangest was that he could again write perfectly normally and easily with the hand previously affected with writer's cramp and afterward paralysed. This case speaks much for the probable central origin of the trouble in many instances, where the knots and infiltration in the muscles found by the masseurs had nothing to do with it, and in spite of their alleged removal the cramp often continues. These symptoms of excitement in this case were benefited by the inhibition induced by the apoplexy.

In conclusion we find on reviewing the physical remedies, that:

1. A large number of the *physiological effects* of physical remedies are established.

2. A large number of reliable observers have derived the same *benefits* from their rational employment, and so often that they are regarded as dependent on them; their general organic action must be regarded as the greatest part of their cause.

3. These observations provide the reason for the opinion, that *but a small part* of the results attained are due to suggestion.

4. It is further established that physical remedies employed with competent experience, according to decisive principles, cannot injure the patients.

5. In the most modest practice the employment of the largest part of these methods, which are chiefly prescribed for a curative effect, is possible and practical.

But unfortunately, anything more positive cannot be said of the other remedies in nervous troubles.

Greater advancement in the knowledge of their action is to be expected from their more general employment at the clinic, and thus more general scientific work. Waldeyer's neuron theory has proven of benefit, in that Goldscheider first tried to explain the import of stimulation in the light of the neuron theory. The theory of the "neuron liminal" introduced by him is at least able to trace back the greatest part of the curative effects to amplification, respectively,

derogation of the liminal altitude (inhibition and facilitation). This is not the place to more fully discuss these interesting matters.

It follows from all that has been said, that to-day we are in position to employ the physical remedies with benefit to our nervous patients, not only in sanitariums, but also in general practice.

THE APPLICATION OF ELECTRICITY IN THE TREATMENT OF SOME DISEASES OF THE NERVOUS SYSTEM.*

By DR. ALEX. L. HODGDON, Baltimore, Md.

Professor of Nervous Diseases and Diseases of the Mind, Maryland Medical College; Neurologist to the Home for the Aged.

DURING late years a great amount of skepticism seems to have been indulged in by many members of the medical profession in regard to the use of various forms of electricity and the magnet, in the treatment of disease; many, I understand, believing that no benefit whatever accrues to the patient, others that the influence is purely psychical, and still others who believe that psychical influences do not play a part in the results achieved. Some of these may think there is little good accomplished outside of the galvanic current with its direct chemical action; others may include the faradic as worthy of notice; still others may deign to admit the virtues of static electrification, while only a few seem disposed to ascribe any virtues whatever to the magnet. But why should not all of these therapeutic agents be used in appropriate cases? Because opium is good, in certain disorders, why limit ourselves to its exclusive use? There is another aspect to this subject —that is, should only one drug be used, opium probably is the most generally useful, and if only one form of electricity be administered, due possibly to lack of time or inclination on the part of the general practitioner, then it may be well to possess either a galvanic or faradic battery, as being the most generally useful.

*Read before the Clinical Society of Baltimore, Md., at its meeting, November 16, 1900.

Of all the various diseases of the nervous system, there is probably none in which electricity is more generally useful than in the treatment of neurasthenia, or nervous exhaustion, with its many psychical and other symptoms, simulating at times, grave organic trouble. In this disorder we have many distressing features, such as the lightning-like pains, resembling those of locomotor ataxia, the cold extremities, the tremor, headache, and gastric symptoms; the latter predominating in many cases; the cardic palpitation may even be so great as to cause the patient to fear that he is the victim of an incurable heart lesion. The great feeling of exhaustion present, either mental or physical, as the cerebral or spinal form of the trouble predominates (cerebrasthenia or myelasthenia), also the morbid fears to which some of these victims are subject, as agorophobia (fear of open places), topophobia (fear of places in general), claustrophobia (fear of closed places), anthrophobia (fear of man), gynephobia (fear of women), all of which, with sometimes many other symptoms present, but too numerous to mention, paint a graphic picture of neurasthenia. This literally being a condition of nervous exhaustion, what would be the treatment indicated? I shall not mention the administration of drugs (of which there are many good ones) in this article, as it is only upon the subject of the electro-therapeutics of the diseases mentioned; therefore the treatment should be, one or all of the following methods: Central galvanization, the object of which is to bring the nervous system, the spinal cord, brain, and sympathetic, as well as the pneumogastric and depressor nerves under the influence of the galvanic current; the method of performing which is, to place the negative pole on epigastrium, the positive on cranial centre, passing it over forehead and top of head, by inner border of sterno-cleido-mastoid muscles, from fossa to sternum, at nape of neck, and down entire length of spine. General faradization may advantageously be practiced, by placing the feet on a large wet cloth electrode, and passing the roller electrode over nearly the whole extent of the body. Static electricity is probably better adapted to the treat-

ment of this condition than any other form of electrical applications, and it may be administered by either insulating the patient negatively or positively, according to his various symptoms, the negative insulation being suitable for the greater proportion of neurasthenics. It must be remembered that the population of this earth is constantly in an electric bath, on clear days, the atmosphere being positive, and the earth negative, while on cloudy days the conditions are different, as the earth may be either negative or positive; therefore clear weather producing, in most neurasthenics, the greatest sensations of bien être, they should be negatively insulated, while a positive breeze, spray, roller discharge, or marked sparks, are applied; being careful to avoid the region of the eyes while administering sparks. The static breeze and spray are better adapted to the treatment of the neurasthenic than any other form of administration; this, I believe, being acceptable to about all, but a certain number are very susceptible to the action of the sparks, which may produce disagreeable sensations in the patient. A few in whom extreme excitement prevails may be better treated by the cathodal rather than the anodal discharge. I consider the prognosis of neurasthenia very bright when treated by electricity. In the various forms of sexual neurasthenia in the male electricity may be applied to the genitals of the individual either externally or by intra-urethral application, by insulated electrode or ordinary metallic sound. This applies also to cases of impotency, but when loss of sensation exists in the mucous membrane of the glans and foreskin the faradic wire brush from the secondary coil should be passed over the surface of glans, and internal portion of foreskin, every day or every other day, or the galvanic current may be applied, taking care not to make it too strong (remembering that electrical resistance of mucous membranes is slight), or in some cases which may not yield to any other treatment, the static spray or sparks may give relief. The sparks can be administered by using the Morton pistol electrode, separating the brass balls, and placing the sponge end over the glans penis; this treatment it seems

to me is a great deal more scientific than a great deal of drug administration for this class of diseases. In general atonic impotency sparks may be drawn from the lower portion of the spine as well as treatment addressed to the parts themselves. In exophthalmic goitre, I consider electricity to be one of the best remedies of which we know. The negative sponge may be placed below auriculor-maxillary fossa and the positive over sixth and seventh cervical vertebra, using the galvanic current, and thus galvanizing the cervical sympathetic, or one pole may be placed over heart. A current of from 3 to 8 milliamperes can be used, or the faradic current be applied directly over enlarged gland. Remedies may be applied directly to enlarged gland by means of cataphoresis. I have used a mixture of about equal parts of Liq. Iodin. Comp. and Ergotole in this way, in a cataphoric cup attached to the anode directly over the gland. Generally speaking, the iodine should be placed under the cathode, as it is electro-negative, and would be attracted toward the positive pole, but by remaining there, for sometime, it becomes polarized and in that way, after becoming of the same polarity is expelled, and passes through the tissues with the ingoing current. Static electricity is of great value as a general tonic, and may even be of benefit in a certain number of cases by administering direct sparks over the seat of the enlarged gland. It must be remembered that the resistance of the skin to the electric current is greatly diminished in many cases of this kind, being due probably to the dilatation of the capillaries with blood. The normal resistance of the body being from about 4000 to 8000 ohms, it is found that in exophthalmic goitre the resistance may be 800 ohms or even as low as 300 ohms; this is a valuable point in diagnosis. A great many of the spinal cord cases are apparently hopeless, especially in their later stages, but in posterior spinal scleroses, hereditary ataxia, and the combined scleroses of the cord, as well as disseminated sclerosis, are there many things which hold out any better hope for a cure, or for an amelioration of the symptoms, than electricity? The static breeze in the headaches accompanying locomotor ataxia, is probably the

best agent which can be used. In neuralgia of the fifth nerve, sometimes one form of electricity may relieve, and sometimes another, but it is well to always remember that the positive, or anode, is the sedative pole, and the negative or cathode the irritant, and that descending currents are sedative and ascending of a stimulating, or irritant nature; also that the current from a long or high tension coil is sedative, while that from a short coil is irritant. A test for high tension may be made with a Geissler tube, the tube being glowed by the high tension coil, as I will illustrate; the battery here, being a chloride of silver battery, which is one of the best made, the cells having a wonderfully long life.

Some forms of chorea and neuralgia seem to be greatly benefited by the use of the magnet. I have a permanent one in my office, made for me in France, capable of supporting about 180 pounds. Always remember that the south pole is sedative, while the north pole is irritant; the polarity may be determined by the compass. In nearly all forms of headache electricity comes nearer to being a specific than any other form of treatment; all of the various forms of electricity being useful. The static applications are probably of greater service than any other kind; the positive breeze or spray, or even head bath electrode, being brought near to the painful portion, allowing the spray or breeze to play generally over the head, taking care to keep out of sparking distance. The cataphoric administration of cocaine may be practiced over the painful neuralgic portion of the head, the cocaine being carried down to the nerve by the anodal or ingoing current, and should be in solution and if possible a cataphoric electrode should be used. This has proved itself very valuable in neuralgia.

In hysteria, static and faradic electricities are probably the most valuable remedies which can be used, and should be administered in the form of the breeze, spray and roller, and the faradic by general faradization, using the roller electrode. In all of the diseases before mentioned the use of electricity should never be neglected; and in the various

forms of paralysis it is the most generally useful form of treatment of which I can conceive.

Both the faradic and galvanic currents as well as the static may be passed through the ground and in that way be administered to the patient.

A comparatively low tension medical induction coil would seem to be transformed into a high tension coil by creating a ground circuit, as I will illustrate, by grounding the wires, placing my body in circuit, passing the voltage through my body, with its thousands of ohms of resistance, and yet causing the Geissler tube to glow brilliantly by means of the voltage passing through my body. I have never seen anything written upon the subject of increasing the tension by grounding a medical induction coil, but as you see, it can be accomplished. Nor have I seen any reference to grounding the medical galvanic current.

SOME OF THE MEDICAL AND LEGAL PHASES OF INSANITY*

By CHAS. O. MOLZ, M. D., Bedford, Ind.†

IN ATTEMPTING to prepare a paper for the edification of the learned men constituting this medico-legal meeting, I have fully realized the herculean task which has presented itself to me, and although I may enter largely upon the domains of medical study I ask the pardon of the legal men present for it is necessary that I do so in order that I may be able to more fully and clearly elucidate the medical and legal phases of the subject, which I have attempted to handle.

In discussing the subject of insanity from a medico-legal standpoint we enter upon a study that is to-day more fully understood than it was a few years since, and will in the next decade be still more clearly understood.

The conception constituents of what to-day comprises our nervous system is vastly different from that which supposedly constituted it only five years since. When we then had the cell, nerve fibre and terminals we to-day have the hystologic element under the name of the neuron, consisting of cell, neuraxon, collaterals, and terminal filaments, or dendrites, and where in former years the weight and size of the brain was supposed to be a criterion by which we could judge of a man's intellect, we to-day judge it by the number and conditions of the neurons. This neuron concept, as it is called, is now generally accepted by

*Read before a joint meeting of the physicians and Lawyers of Lawrence Co., Indiana May 5th 1900.

†The author acknowledges his indebtedness to the current literature of Psychiatry for many facts and conclusions contained in this contribution.

physiologists, and every day brings forth new and valuable information on the subject.

The brain is that portion of our cerebro-spinal system of neurons situated in the calvarian and the study of its pathological conditions and diseases is to-day an important branch of medicine, and one upon which modern science is directing her search lights with assiduous attention.

The brain is rightly called the Colonel of the nervous system and is the seat of intelligence, will, understanding, reason and memory, and it is easy to perceive how an abnormality of any one of these functions may cause such a change in a person that the question of his sanity or insanity may readily arise. Insanity is a disease of the brain and not of the mind as is commonly supposed and demands as much attention as any other disease of that organ. While it is a disease of the brain, it does not invariably start in that organ. Indeed it may originate almost anywhere else, as in the uterus of the female or a diseased colon and with proper treatment of these organs the insanity may be caused to disappear.

Insanity is more frequently secondary than primary and when a man is insane, there is always a disturbance of the normal working powers of the brain, and this secondary prominence constitutes one step towards the proper elucidation of the subject, for it emphasizes the fact that it is not necessarily a stigma, as was formerly supposed, and is yet considered by so many, nor is it, metaphysically speaking, a disorder of the mind with accompanying mental disturbance of a mysterious character. It is an affection of the brain which, though not always, originating there invariably has its seat there.

This is easily understood when we consider that there is no part of the human economy, however infinitesimally small it may be, but which is connected with this great cerebro-spinal center, and is dominated by influences which emanate from it. For this reason we can readily understand that the functions of the brain may be impaired by the presence of disease, especially when the predisposition to insanity exists.

Predisposition exists toward insanity as it does toward other diseases and some are very much more predisposed to it than others, and always labor under a highly unstable condition of the nervous system.

People subject to the same influences and surroundings undergo different changes and while one may go insane another may not suffer the slighest change of his intellectual functions.

If an inquiry is made of the insane the fact is nearly always elicited that this predisposition does not originate with the person himself, but is hereditary and transmitted. Insanity literally means deprivation of reason, deviation from normal health, unsoundness of mind. Now is it possible to form a definition of insanity?

"Can a line be drawn so sharply between reason and insanity that on one side all the phenomena found shall be compatible with reason and on the other with insanity?" This is impossible and as one great author says: "The shades of variation in eccentricity, between sanity and insanity, are so slight and numerous that it is exceedingly difficult to state where reason ends and insanity begins."

"This we have all observed in some of our friends, whom if we had not known all our lives we would be ready to pronounce insane."

"This too is made prominent because at times one's deportment may not be compatible with sound mental health, while at other times he entirely removes our apprehension. This class of cases may be said to live constantly upon the "border line of insanity" and are apt at times to cross the line and then return."

"Many learned and eminent men occasionally cross the line and make excursions into the labyrinths of intellectual abberation. These are the cases which require months of study to arrive at a definite conclusion, and even then we may be baffled."

No two persons' intellectual faculties are exactly alike; we differ in this as we differ in all other things, and if we differ so much physically and mentally in health, how much more will we differ in disease! Our mental faculties

are blunted by neglect of education or they are sharpened by mental gymnastics. In men who study habitually, and who constantly think, there is, figuratively speaking, a constant mental absorption going on, to which Dr. Carpenter has applied the term "Unconscious cerebration" and with which each of us has had some experience. Can we not recall the time when we were perplexed by some legal or medical question, racking our brains for its solution, burning mid-night oil that we might solve it and finally gone to our beds to sleep and wake up the next morning with the solution plain when a few hours before all was dark? We were appropriating knowledge unconsciously and after an invigorating rest, the mind manifested what had been acquired without perception.

To formulate a definition of insanity which would be comprehensive is a task that is nearly an impossibility on account of the protean character of the disease and of the wide dissimilarity that exists between normal minds, which dissimilarity is necessarily widened by disease. There are no constant characteristic phenomena which may be said to be attendant upon mental alienation, and any physician is justified upon the witness stand to refuse to define insanity.

Shephard gives a definition as follows, "Insanity is a disease of the neurine batteries of the brain". This definition, he states, will puzzle the lawyers. In cases in which medical testimony is desired, lawyers possessing a knowledge of medical jurisprudence and some smattering of medicine formulate definitions of their own, knowing how incomplete they must be, and then attempt to entangle the medical witness in their meshes. For this reason the shorter the definition the better. Maudsley says "Insanity is a morbid derangement, generally chronic, of the supreme cerebral centers, the gray matter of the convolutions or the intellectorum commune, giving rise to a perverted feeling, defective or erroneous ideation and discordant conduct, conjunctly or separately and more or less incapacitating the individual for his due social relations". This definition is voluminous and yet inefficient. It is comprehensive and does not cover all cases. It has however one advantage, it states that insan-

ity is a chronic disease, for all cases existing three months are considered chronic.

It is a popular belief among the laity that a man to be insane must be a raving maniac; while just the opposite condition may exist.

He may be courteous, intelligent, polished and affable and yet be hopelessly deranged: Some times it is most difficult to determine the exact mental condition of insane persons, because some of them possess such perfect control over themselves. Cases are on record in which insane persons at their own "de lunatio inquirende" have obtained permission to address the jury and after doing so have been released leaving the impression with the jury that judge, lawyers and doctors were doing an injustice and that the alleged lunatic was of greater intellectual acumen than those trying to incarcerate him in an asylum. Personally I can recall several cases in which after six months constant contact as physician, I failed to discover an insane word, delusion, or act, and yet some of these patients had been inmates of the asylum for ten years or more, and were considered incurable.

"An insane person does not cease to be human, and it should not be forgotten that the insane are just as liable to commit crime as the sane. The propensities, motives, schemes, peculiarities, eccentricities, disposition, moods, and general characteristics of sanity frequently coexist with insanity. The insane just as often commit crime as the sane, and the determination of a man's free will is no easy matter and one that can not be determined by one or two interviews. Man's free will is not the property of any substance which can be demonstrated by chemistry, physiology or microscopical research, but it is the result of a combined action of a whole group of functional activities the very relation of which to each other are as unknown as their method of action."

The legal conception of insanity is a condition of the mind with reference to certain conduct. "An insane person is simply non-compos-mentis. Insanity is irresponsibility." A lawyer's idea of insanity is narrower than that of the physician, regarding it as he does, with reference to a certain

act or series of acts. Folson holds that "an insane person in any insane asylum may be a party to a valid contract" or make a will that will hold in law. In this opinion he is in accord with many of the highest authorities on medical jurisprudence and to quote him further he says "A man is not insane in law unless his act is traceable to, or its nature has been determined by mental disease affecting his free agency. In other words, unless insanity causes his act either wholly or in great part."

The medical man should always remember that there may be, as regards some particular person a wide difference between medical insanity or mental disease and legal insanity or irresponsibility. He does his duty when he confines himself to the explanation of the changes caused by disease, leaving the question of guilt or responsibility to the judge's charge and the jury's verdict. It is entirely out of the province of a medical expert to pass upon the question of guilt and responsibility, for when he does so he encroaches upon the domains of judge and jury. No medical witness should prostitute his calling by having any interest in the case either financial or otherwise. Nor should he be biased in his opinion either before, during or after the trial. He is there to tell the truth, the whole truth, and nothing but the truth, and he should not accept any contingent fee or one which has any relationship to either side of the case. He is in a false position if he places himself in the attitude of an advocate, as he is interested solely in explaining and supporting the unvarnished facts, as they are tabulated and presented for analysis by those whose duty it is to arrange them in their proper order.

The individual on trial must be compared to himself at some previous time and not some ideal standard of mental health which never existed. Folson most correctly states: "If we could measure nicely, no two of us could be held to the same degree of accountability". He also states: "The degree to which the individual deviates from the path of the law may depend more upon his training and surroundings, than upon his disease. Points which also must be considered

in establishing a definition for insanity in obscure cases.

Most authorities emphasize the fact that it is not the doctor's province to punish for crime but to treat disease, and that the doctor fails to appreciate this distinction. Medical definitions of insanity in text books and on the witness stand fail to state clearly enough how far the medical and how far the forensic meaning of the word insanity is implied. What seems to be a wide difference of opinion regarding responsibility for crime as given in the courts is often due to different ways of stating the question and nothing more. Boileau said that, "All men were insane, the only difference being the skill by which some could conceal the crack."

Montesqieu says, "that insane asylums are built in order that the out-side world may believe itself sane."

Haslam in 1832 who was one of the first experts on mental disease in England testified that he had never seen a sane person in his whole life, adding: "I presume the Diety is of sound mind and He alone."

Savage in his treatise on insanity and allied neuroses remarks: "The first question naturally is, what is meant by insanity?"

It has been clearly proven that no standard of insanity as fixed by nature can under any circumstances be considered to exist. Sanity and insanity as used by physicians and public are words of convenience. No person is perfectly sane in all his mental faculties any more than he is perfectly healthy in body.

Spitzka is more nearly correct when he says, that with our present knowledge it is impossible to correctly form a definition of insanity, which, while it meets the practical every day requirements is constructed on scientific principles. As it is to-day, scientific definitions must rest upon hypotheses."

Insanity is a disease that interests us all because it may at any time invade the sacred precincts of our own home. It is a disease that is becoming exceedingly rife, keeping pace some authors hold, with advancing civilization, and clinical observations prove that the wear and tear, the

stress, the contentions, troubles, of every day life engulf many minds, so weakly constituted that they are not able to resist such inevitable influences.

Modern science has accomplished one achievement, in dismissing the old mythical theories of the metaphysicians, which taught that in dealing with insanity we were witnessing or combating nonentities, shadows, spiritual processes, or mystical conditions of still obscurer origin, and that the insane should be forever ostracized, though predjudice still exists among many, however much science has progressed.

Another accomplishment of science is in the fact, that there is nothing in the aspect or appearance of the insane to lead us to be able to at once diagnose the disease by a casual observation of the physiognomy. In medico-legal contests you frequently hear lawyers use the expression, "the wild eye of the insane" and yet there is no physician who has had any experience in insanity who does not fully appreciate the fallacy of such a statement. There are some forms of insanity which present a very marked characteristic expression, for instance, the dement, but in passing through an asylum, where we may observe others, who may be playing cards, billiards, chess, perusing periodicals, and then listen attentively to their conversation or study their features, and we will find that we have a task that is herculean in character. We can not diagnose insanity without careful subjection of data which should mould our opinions to the laws of diagnosis governing the recognition of other diseases.

To the community at large the plea of insanity is one of the utmost importance. The medical witness therefore has a double duty to perform, justice to the community and justice to the prisoner at the bar. Society demands protection against crime and violence, while the prisoner if insane has not forfeited his claims upon humanity. The plea of insanity is abused and fraught with great evils, and the plea itself is derided by press and public.

None will dispute the fact that where real insanity is proven to exist, it would be most unjust to subject such a person to the penalties of the law, when his volitional

powers are morbidly impaired or destroyed, and who therefore must be morally irresponsible. Forbes Winslow, an eminent authority thinks "such cases should be left to a commission of medical experts for adjudication."

One authority holds "That simple justice requires, whenever a man after committing a homicide is liberated upon a plea of insanity '*ipso facto*' he should be sent to an asylum for life, because in cases of supposed recovery no one could assume the responsibility of affirming that sooner or later his dangerous disease would not recur."

On the contrary every physician knows that one attack of insanity predisposes to subsequent attacks, therefore from the character of the act, and the probability of its recurrence, from the very nature of the disease, if a man has once deliberately taken the life of a fellow creature, in consequence of want of proper volitional control due to the disease termed insanity, then for and during his life he should be deprived of liberty and never again be afforded a chance to perpetrate similar deeds.

It has been held that physicians alone should pass upon the plea of insanity, because the psychological physician is more familiar with all the phases and complications of mental alienations than his professional brother, the lawyer or the judge. The irreconcilable antagonism that exists upon the plea is widening more and more each day because the physician who makes this a life study is opposed and thwarted by minds more guided by legal acumen than enlightened by the scientific status of the question involved. The nonprofessional observers of the contest day by day grow more skeptical, humanity suffers and the discoveries of science are rendered less available.

The question of motive always arises, whether the act be done by the sane or by the insane. If a child kill its parent, not influenced by passion, the desire of inheritance, or any other discoverable cause, a strong suspicion and presumption of insanity will arise.

If a mother destroys her children to send them to heaven, the same doubt of her sanity will suggest itself. But even in cases where no motive is determinable, it is

well known that the insane are influenced by motives equally with persons of incontestible sanity.

The successful treatment in modern institutions to-day for the treatment of the insane is that of parent towards child, rewarding or punishing as indicated. "Kindness but firmness" with the insane should never be forgotten, for they allow themselves to be swayed by motives the same as other people.

There are sane people the interpretation of whose motives are inexplicable mysteries and we would have to penetrate deeply into the labyrinths of the innermost soul to be successful in this direction. "It is assumed or implied," says Dr. Taylor, "that sane men never commit a crime without an apparent motive or of a delusive nature only in the perpetration of the act." If these positions were true it would be very easy to distinguish a sane from an insane criminal, but the rule wholly fails in practice. In the first place nondiscovery is assumed to be a proof of the nonexistence of a motive. It is undoubted that motives may exist for many atrocious crimes without our being able to discover them, a fact proven by the numerous recorded confessions of criminals before execution, in cases of which until these confessions were made no motive for the perpetration of the crime had appeared to the most acute minds.

Of late years the study of epileptic insanity has received the attention from writers on forensic medicine that it has deserved.

In the criminal records of civilized countries there are very few cases in which this disease has received the consideration it deserves in fixing the responsibility of the accused.

The medico-legal students of epilepsy heretofore have paid too little attention to the conditions allied to and dependent upon it and which require special treatment and demands the serious attention of every medical jurist.

It is a common opinion of many authorities that epileptics with exception of just before, and, after an attack, and included in it, are sane from a medical, and competent and responsible from a medico-legal standpoint, unless they are

chronically demented. This view is held by many general practitioners and by most English medico-legal authorities, while on the other hand, certain authorities hold that on the slightest indications of epilepsy the subject can not be of sound mind or responsible for any action whatsoever. Spitzka however holds that both of these opinions are extreme and damaging to the cause of justice because interested and unscrupulous medical experts may fortify themselves by such opinions in support of testimony too ofen successful in defeating the legitimate purposes of the law.

Fredericks, a noted German authority, says "That criminal responsibility is absent in epileptics even should it be proven that the determination to commit a criminal action resulted from revenge or malignity." This, however, is not upheld by American authorities.

Trosseau, the eminent French neurologist, says in strong language:

"It may be said almost without fear of making a mistake, that if a man suddenly commits murder, without any previous intellectual disturbance, without having up to that time shown any signs of insanity and if not under the influence of passion, alcohol or any poisonous substance which acts with energy on the nervous system, it may be said, I repeat, that the man is afflicted with epilepsy, and that he has had a fit, or more usually an attack of epileptic vertigo."

The question is much discussed, and many eminent authorities have taken sides upon the subject, but the fact still remains to unprejudiced and attentive observers that there is a fatal influence of epilepsy upon the intellectual faculties, especially of epileptic vertigo. Epilepsy assumes many forms and presents many phases, but after all it is a form of insanity.

"Should lunatics be hanged" is a question that does not seem to need discussion in this enlightened age, and yet it is agitated and reagitated notwithstanding its senseless barbarity. Some hold that as lunatics are dangerous, expensive and of no possible benefit to the community *pro bono publico*, they should be hanged as soon as they

committ a crime. The atrocious inhumanity of such a sentiis as disgraceful as it is brutal.

As regards the plea of insanity Lord Hale's views were extreme. He held that "There must be a defect of the understanding unequivocal and plain."

Lord Coke held "That whoever by sickness, grief or other accident, wholly loses his memory and understanding is 'non compos mentis'."

Lord Chief Justice Mansfield in the trial of Bellingham, charged that "The single question was whether at the time the act was committed he possessed a sufficient degree of understanding, to distinguish good from evil, right from wrong, and whether murder was a crime not only against the laws of God but the laws of his country."

Lord Erskine considers "Delusion where there is no frenzy" to be the true characteristic of insanity." Viewed however as a principle of law the delusion and act should be connected." But this eminent Lord's view can not be upheld, for while delusions are a most frequent accompaniment of insanity, there are many forms in which delusions are entirely absent.

Dr. Haslam says "That it is not the province of the medical witness to pronounce an opinion as to the prisoner's capability of distinguishing right from wrong. It is the duty of the medical man, when called upon to give evidence in a court of law to state whether he considers insanity to be present in any given case, not to ascertain the qualtity of reason which the person imputed to be insane may or may not possess."

As regarding the recognition of right and wrong it is now an indisputable fact that nearly all the insane make this distinction without difficulty.

Lord Bramell once said "that insanity is a strong but not conclusive evidence of innocence" and Lord Blackburn has stated "That the jury must decide in each individual case whether the disease of the mind or the criminal will was the cause of the crime."

Sir Jas. Stephen in his history of criminal law in England says: "No act is a crime if the person who does it is, at

the time when it is done, prevented, either by defective mental power, or by disease affecting his mind from controlling his own conduct, unless the loss of power of control has been produced by his own fault."

Baillarger states that "the essential element of insanity is loss of free will."

Ball of Paris describes an insane man as "one who in consequence of profound disturbance of the mental faculties has lost more or less completely his free will and has ceased thereby to be responsible for his actions."

The Supreme Court of U. S. in a decision maintains, "That the presence or absence of will power, in the plea of insanity is the question upon which the existence of criminality or responsibility exclusively depends."

The volitional centers are invariably affected in all forms of insanity, hence in every judicial charge the question to be determined is as to whether or not the criminal pleading insanity, while recognizing the difference between right and wrong, is able or unable to control his actions.

The fashion prevails to-day of attempting to shield criminals under the protective aegis of insanity. This plea is too often used to defeat the ends of justice and in extenuation of fearful crimes.

Insanity is recognized as a cause of impulsive crime and a suspicion of its existence should excite care and full research, but the fact that it is so often used to protect criminals, should not affect the public mind so that persons morally irresponsible suffer any penalty. Christian charity or even common humanity should make us fair and just in our dealings with this class of criminals, for it would be much better that many guilty should go free than one innocent man should unwarrantably suffer the extreme penalty of the law.

DEGENERACY STIGMATA AS A BASIS OF MORBID SUSPICION.*

A STUDY OF BYRON AND SIR WALTER SCOTT.

By JAS. G. KIERNAN, M. D., Chicago.
Fellow of the Chicago Academy of Medicine; Foreign Associate Member French Medico-Psychological Association.

ACCORDING to Lady Blessington, a keen observer, who evidently understood Byron better than other persons of her time, Byron's eyes were asymmetrical and were unequally placed. There was a difference in the pupils as well. Stigmata of the eyes have not received as much attention as those of the ear, despite the fact that they far from rarely crop up in degenerates. Guiteau, as I pointed out nearly two decades ago,† had a similar asymmetry of the orbits and pupils. Aught that affects deeply the development of the eye naturally tends, according to Talbot,‡ to evince itself in other anomalous states in that organ. Since excessive asymmetry of the body is one of the most noticeable of the stigmata of degeneracy, it is not astonishing to find that this asymmetry expresses itself both in the position as well as in the size and structure of the eye. As I pointed out more than twenty years ago§ asymmetrical irides are exceedingly frequent in the types of insanity due to hereditary defects. This observation has since been confirmed by Fèrè and Woodruff‖ as to

*Continued from the July, 1900, ALIENIST AND NEUROLOGIST.
†*Chicago Medical Review*, December 15, 1881.
‡Degeneracy: Its Causes, Signs and Results.
§*Journal of Nervous and Mental Diseases*, 1898.
‖*American Journal of Insanity*, No. 2, 1900.

all classes of degenerates. Microphthalmia (small eyes), macrophthalmia (big eyes) are quite frequent in degenerate families. Corectopia (displacement of the pupil so that it is not in the center of the iris) often exists. Coloboma (eye fissure) is also not infrequent among the degenerate. These vary greatly in situation and general results. The iris is sometimes completely absent on one or both sides. Besides the anomalies, diseased conditions like retinitis pigmentosa, congenital cataract and mascular degeneracy reported by C. P. Pinckard, of Chicago, are far from infrequent expressions of degenerate taint in the eye; the organ in this particular obeys the general law that degeneracy may show itself in the minute change resulting in disturbance of function or in that producing disease, or finally in atavism. Defects of the eye requiring glasses are exceedingly frequent in degenerates and often aggravate their morbidity.

Dr. L. W. Dean* has confirmed the results of Talbot in a series of examinations made at the Iowa College for the Blind. He cites the case of two brothers married to two sisters who were their cousins. As a result of these unions there were seven children, five of whom had retinitis pigmentosa. This condition Dr. Dean has found associated with polydactylism, micropthalmus, colobomata, cleft palate, etc., in the same individual and other members of the family.

According to Roberts Bartholow, when Byron and Scott met in London at the house of Murray, the publisher, the conversation between them concerned every topic other than their mutual lameness. There was neither humorous nor serious allusion to their physical limitation. Byron guarded his secret with exquisitely sensitive apprehension of exposure and permitted no reference to it even by his most intimate friends, and was quick to resent even a look of inquiry directed toward his deformity.

Scott was never reticent about his lameness and gave in an interesting autobiographical fragment the following clinical history of his ailment: "I showed every sign of

Ophthalmic Record, September, 1900.
†*New York Medical Journal*, November 4, 1899.

health and strength until I was about eighteen months old. In the morning I was discovered to be affected with the fever that often accompanies the cutting of teeth. It held me three days. On the fourth, when they went to bathe me, as usual, they discovered that I had lost the power of my right leg. There appeared to be no discoloration or sprain. Blisters and other topical remedies were applied in vain. When the efforts of regular physicians had been exhausted without the slightest success, my anxious parents during the course of many years eagerly grasped at every prospect of cure which was held out by empirics, or ancient ladies or gentlemen who conceived themselves entitled to recommending various remedies, many of which were sufficiently singular." When he was four years old he was sent to Bath, where for a year he "went through all the usual discipline of the pump room and baths, but he believed without the least advantage to his lameness." He was treated by the celebrated electrical quack, Dr. Graham, who made a great parade of electrical appliances, but he was not benefited in the least by the magnetic touch of the splendid quack or by the electric current.

Scott's maternal grandfather, Dr. Rutherford, professor of medicine in the University of Edinburgh, sent him into the country to rough it, and made efforts to call into action the affected muscles by the will. This method consisted in placing bright objects or things that the boy especially desired in such a position that he could get them only by the most powerful efforts, in which the affected member participated. By the persistent use of this plan of "natural exertion" there ensued a great gain in the power of the will over the muscles, and they increased in size and in the range of their actions until the limb ultimately became quite useful, although always lame. This method of dominating the paralyzed and wasted muscles by the forcible action of the will is only possible in those cases in which a little voluntary control was still preserved. Some response to the will may be present, Bartholow claims, when the faradic or interrupted galvanic currents have no longer any power to excite muscular contraction. That this was the

case with Scott is shown by the results of the method of "natural exertion." As he writes in his autobiography: "My frame gradually became hardened with my constitution, and being both tall and muscular, I was rather disfigured than disabled by my lameness. The personal advantage did not prevent me from taking much exercise on horseback and taking long journeys on foot, in the course of which I often walked from twenty to thirty miles a day."

Graham, the quack, mentioned by Dr. Bartholow, was one of the fashionable medical fads of the late eighteenth and early nineteenth century. He was partly educated in the University at Edinburgh, when he left for America, where the newspapers gave him a great boom as a philanthropic physician traveling for the benefit of mankind, to administer relief in desperate cases which had baffled ordinary practitioners. His advertisements celebrated his nostrums and medical skill in religious poems. By this means he obtained a considerable reputation in Connecticut and Massachusetts. Just before the Declaration of Independence he found it necessary to return to England, where he began practices similar to those which the *Chicago Clinic* has lately permitted a female Christian Scientist to advocate in its columns. Under the title of a Temple of Hymen, and under the pretense of instructing persons of both sexes who were willing to sacrifice to Venus in its sacred domes, he engaged to teach "the art of preventing barrenness and of propagating a much more strong, beautiful, active, healthy, wise and virtuous race of human beings than the present puny, insignificant, foolish, peevish, vicious and nonsensical race of Christians who quarrel, fight, bite, devour and cut one another's throat over they know not what." Such was the language of more than one of his eccentric advertisements in the London papers. He erected the most elegant and superb bagnio invented since abolition of public worship of Aphrodite in Paphos and Cythera. All the exertions of the painter and sculptor, all enchantments of vocal and instrumental music, all the powers of electricity and magnetism were called in to aid, enliven and

heighten the voluptuous scene.* The most sacred shrine, called the great Apollo, was 30 feet long by 20 wide and 15 feet high. According to Graham, no words can convey an adequate idea of "the astonishment and awful sublimity which seizes the mind of every spectator. The first object which strikes the eye, astonishes and expands the mind and ennobles the soul of the beholder, is a magnificent temple sacred to health and dedicated to Apollo. In this tremendous edifice are combined or singly dispensed the irresistible and salubrious influence of electricity or the elementary fire, air and magnetism, three of the greatest of those agents of universal principles which, pervading all created being and substance that we are acquainted with, connect, animate and keep together all nature, or, in other words, principles which constitute as it were the various aculties of the material soul of the universe: the Eternally Supreme Jehovah Himself being the essential source—the Life of that Life—the Agent of those Agents—the Soul of that Soul—the all-creating, all-sustaining, all-blessing God —not of this world alone, not of the other still greater worlds which we know compose our solar system."

The temple was the auditorium where Graham delivered what he called eccentric lectures on generation, which were illustrated by handsome nude females. He displayed crutches, ear trumpets and spectacles over the outer door of the Temple of Health as evidence of his skill. Amongst the furniture of the Temple of Health was a celestial bed, provided with costly draperies, standing on glass legs. It was prescribed to married couples as a cure for sterility, at a cost of $500 per night. Graham was an alcoholophobiac and a vegetarian. He anticipated Kneipp in all particulars of the "cure," including the walking on grass with bare feet. Graham, like Dowie, posed as a new Messiah, and calling himself the servant of the Lord O. W. L., claimed to inaugurate a new era. He prescribed mud baths, covering the patient completely to the neck. He was a great favorite among the quack-ridden nobility and enjoyed, in

*Jeafferson, "Book About Doctors."

consequence, the fees of the shopkeeping class who courted to the nobility.

The employment of a quack like this by the paternal relatives of Scott would indicate that belief in the occult in medicine which characterizes degeneracy in people of unequally balanced culture. What has been entitled the recrudescence of superstition as exemplified in faith healing, "Christian Science," and other phases of folklore, is often the result of financial conditions which place people, both American and foreign, of superficially high but judicially low grades of culture in commanding position because of their financial status. The witchcraft delusion maintains its hold among the Pennsylvania Dutch, in certain districts of New Hampshire, Vermont and Maine, as well as in the South. When people of this grade of culture emigrate (in consequence of increased wealth due to the accidental discovery of petroleum, mines and lumber, etc.) to the cities, they exercise an intellectual influence on newspapers, magazines, etc., out of all proportion to their own mental calibre and directly due to their financial status and resultant social advantages. The emigration from the British Isles and the continent of Europe bring people of the same grade of culture who likewise rise in financial status, retaining full belief in all their folklore. Some American types of this grade of culture naturally gravitate to "Christian Science" as they previously did to "metaphysical medicine" and Hahnemannia. Indeed the great apostle of "Christian Science," "Mother" Eddy, began thirty-three years ago as a "metaphysician."

Many American and European phases of folkmedicine retained prehistoric characteristics. Thus "Dr." Paul Wachter was sentenced to the penitentiary in Chicago in 1894 for obtaining money from wealthy North Side Germans to cure disease by putting it in a magic tree. As he employed the money in worship of Gambrinus rather than of the dryads, his dupes had him arrested and imprisoned for obtaining money under false pretenses.

His detection, however, failed to destroy superstition among the class gulled. An individual was recently arrested

for trying the same confidence game on exactly the same class of people. This new aspirant for magical fame claims to possess a magic mirror given him by the Devil by which he is able to cast a spell over the people who fail to believe in his pretensions or to comply with his demands for money. A sixty-year old woman paid him twenty dollars under threats of a "spell" and promises to cure blindness. His usual method of operating was to call at houses of Germans or Poles in North Chicago and ask if anyone were ill. To the invalid he would show a small mirror, bidding him look therein and be healed. The procedure in this particular resembled certain methods adopted by hypnotists. If the individual claimed to feel better, money was demanded with a threat to cast an evil spell if the demand were not complied with. In one instance the mirror man threatened to kill chickens by a spell and to poison a husband if his demands were not met. He also claimed to exercise considerable influence with the Devil. He excited the neighborhood against people who refused to comply with his demands by claiming they were guilty of witchcraft, causing disease.

Some of the "Pennsylvania Dutch" "witch doctors," by such accusations, more than once caused riot and attempted homicide. This was notoriously the case with the famous "Witch Doctor Amend," of Pittsburg, Pa., who died in 1895.

These wizards among the Italians of New York are "Devil's Doctors," who treat disease as follows: They first blow in the patient's face and afterwards scarify his hands, feet and body with a razor until the blood flows freely. This blood is rubbed over the chest or other part affected. Then the patient's hair is cut off and a letter is written to "Satan, Prince of Hell." The letter and the hair are then burned. These procedures are repeated for four days.

In Paris, France, Satanism of this type described a few years back was a fashionable cult and had its ceremonies with a ritual resembling the famous "Witches Sabbath" so vividly pictured by Hawthorne. About a year ago both West Virginia and some other states had witch-

craft epidemics among the whites. In West Virginia the epidemic required governmental interference. These recrudescences of fetichism do not illustrate that either the age or the race is degenerating, but that commercial changes are placing people at a low grade of culture in positions where their superstition and fetichic creeds receive support.

It is a singularly excellent illustration of Scott's mental balance that, despite this fetichic element in his early environment and despite its presence in his Highland Scotch surroundings, he never became superstitious. Indeed, he lamented to Washington Irving his inability to throw himself intellectually into popular superstition. Byron, however, despite his comparative freedom of thought in religious matters, retained throughout life the occult degenerate fear of the unknown which made him singularly susceptible to primitive beliefs like the evil eye.

(*To be Concluded in April.*)

MEDICAL JURISPRUDENCE IN THE NINETEENTH CENTURY.*

By CLARK BELL, ESQ., LL.D.

President of the International Medico-Legal Congress of New York, June, 1889; Delegate from the Government of the United States to the Thirteenth International Medical Congress of 1900.†

MEDICAL jurisprudence is more greatly indebted to the Italian scholars of the 16th century and the preceding centuries than to those of any other land.

That splendid diplomat, scholar, statesman, musician and physician, Paul Zacchias, was the physician to the Pope in 1620. His treatise, now in the library of the Medico-Legal Society in New York, could be read with profound interest, to see how far advanced was this learned and gifted man, in the elementary and fundamental truths of the science, as recognized to-day.

From the 12th to the 16th centuries, Italy stood pre-eminent in every field of scientific study, and especially in medicine.

Prior to 1500 there were sixteen universities in Italy; while in France there were but six; in Germany, eight, in Great Britain, only two; so that Italy had then as many as England, France and Germany combined, and the supremacy of the Italian universities was beyond all comparison with the others.

This Italian superiority continued until after the 16th

*Abstract of Paper.

†Contributed to the Thirteenth International Medical Congress of Paris, 1900.

century, and it existed when Zacchias wrote and flourished.

It has been well said that "medical jurisprudence owes its power to knowledge derived from every branch of medicine; but the law determines how far this power shall be utilized in the administration of justice."

For more than two centuries Germany has had an organization of medico-legal officials, who are required by law to be qualified by an especial education, not only to procure the medical facts needed by the courts, but to estimate their weight for the benefit of the courts.

In 1650 Machiavelie delivered the first course of lectures on legal medicine at the University of Leipzic, and he was succeeded by Bohn; and as early as 1720 professorships of forensic medicine were erected by the government of Germany.

The literature of the science was enriched, in the 18th century, (1725), by the celebrated authors Valentini, Teichmeyer and Albertus, one hundred years later than the writings of Zacchias. These writers laid the foundation of that literature of forensic medicine for the German scholars, exceeding that of nearly every country, and which, in later years, in the 19th century, has been quickened by the clinical schools, the first of which was established at Vienna, about 1830; at Berlin in 1833; at Munich in 1865. Germany owes her great advancement to the fostering hand of the government, and to favoring legislation.

France, from 1570 to 1692, also enacted laws which favored the study, culture and advancement of legal medicine, and the science progressed; but at the close of the 17th century, the medico-legal officials became hereditary, and the science languished until after the French Revolution.

Since 1790, however, no nation on the globe has surpassed or even equalled France in the culture and advancement of medical science and the arts; and from the era of the French Revolution, and under the reign of the great Napoleon, and those who have succeeded him, France advanced, until she became the seat and center of the highest civilization in the nineteenth century, which proud position she has continued to occupy.

The Exposition of 1889, and the splendid one which marks the close of the nineteenth century, well illustrate her place in the world of science and arts, and the advancing civilization of the world, as the 20th century opens its portal to the brotherhood of man in all countries upon the globe.

During all these years of advancing supremacy in France, all was due to the splendid support given by the government, and by the generous laws of France forensic medicine has kept pace with the sister sciences there.

Chasseur, in 1790, was the first lecturer in legal medicine, and Mahon, in 1795, was the first professor of medical jurisprudence.

In Great Britain very little attention was paid to medical jurisprudence in the 18th century, and she transmitted to her American colonies laws, that have been well stated by Prof. Stanford E. Chaille, in his centennial address before the International Medical Congress of September, 1876, intended as a review of the preceding one hundred years of forensic medicine, as: "barbarously conspicuous for the absence of provisions to apply medical knowledge to the administration of justice, and Anglo-American law continues to be, in large measure, hostile to medical jurisprudence."

These words were spoken in 1876—twenty-six years ago. They properly describe the state of the law of Great Britain at that date, and show why, in the American states the 19th century opened in America with the standard of forensic medicine trailing in the dust. When contrasted with France, Germany and Italy, but America, with this sad inheritance from the mother country, has not remained where she was placed in the first fifty years of the American national life.

Scotland should be exempt from these criticisms. In 1803 a chair of forensic medicine was founded in the University of Edinburgh. Dr. Duncan, the elder, was the first lecturer on medical jurisprudence, in 1801; and his son the first professor, in 1802.

While this University was chartered in 1682, it was not

until 1726 that an English medical faculty was established, with lawful authority to confer degrees. Before 1726, and after 1705, a few honorary degrees had been conferred, but not by legal authority.

In each of the twenty-three medical colleges existing in England, Ireland and Scotland, in 1875, there was a regular teacher devoted to forensic medicine, on whom legal authority to confer a degree in state medicine was conferred, upon those at Cambridge, Oxford, Edinburgh and Dublin; but it cannot be said that medical jurisprudence, as a science, was practically taught outside of the University of Edinburgh, if there, except as to toxicology.

Scotland has kept alive, on her altar at Edinburgh, the science, and Prof. Ogston, and the Scotch scientists, have been among the foremost of medico-legal jurists of Great Britain in the earlier years of the century.

The Registration Act was not passed in England until 1858, and "Glenn's Manual of the Laws Affecting Medical Men," London, 1721, cited by Professor Chaille, in his admirable address, from which I quote, freely states and details thirty-six laws, from 1850 to 1870, of which twenty-five were passed in the twenty years between 1850 to 1870. The medical profession never had legal recognition under English Laws until 1858. No laws existed for the preparation of official medical experts.

The British bench never held medical men or medical expert evidence with the respect with which it was received in France, Germany and Italy, under the provisions of law; and there has been no legislation in England tending to utilize the aid of competent medical knowledge, in aid of the administration of justice, in the British Islands, save in Scotland.

At the opening of the 19th century, the science of medical jurisprudence, upon the American Continent, did not command that recognition in either profession of law or medicine that its importance demanded.

At this era, the science may well be said to be at its decadence in all the English speaking peoples of the world. In England, the works of Farr, Dease, Male and Haslem

may well be said to reflect the progress and state of the science and the American states cannot be said to have made any substantial advances in forensic medicine, having but recently emerged from that revolutionary struggle which established the American nation upon the principles of human rights enunciated in the Declaration of American Independence.

Dr. Benjamin Rush, of Philadelphia, one of the signers of that Declaration, was one of the most conspicuous of those who gave the science attention. He was Professor of Chemisty in the Philadelphia College of Medicine and the University of Pennsylvania, and his labors extended from 1769 until his death in 1813. He held the chairs of Theory and Practice of Medicine, and of the Practice of Physics. He left sixteen lectures, the last of which was delivered in 1810 at the University of Medicine, and was devoted to the science of medical jurisprudence. Its chief features relate to mental states, testamentary capacity and legal responsibility in cases of crimes committed.

Dr. Thomas Cooper, who had been a judge in the courts of Pennsylvania, was a Professor of Chemistry and Mineralogy in the University of Pennsylvania, and published "Tracts on Medical Jurisprudence."

In 1829 Dr. J. Bell, also of Philadelphia, published an address upon the same topic, and he delivered a course of lectures on medical jurisprudence in the Philadelphia Medical Institute, of which he published a syllabus.

Professor Robert Eglesfield Griffith, M. D., of the University of Maryland, and Lecturer in the University of Virginia in 1832, edited with notes and additions the first American edition of the work of Michael Ryan on Medical Jurisprudence, which was published by Carey & Lea, at Philadelphia, where Professor Griffith then resided, and where he died in 1850, at the close of the first half of the century.

But there is no American name to whom the science of medical jurisprudence is more indebted than that of Prof. Theodore Romeyn Beck, M. D., LL. D. He was born at Schenectady, N. Y., August 11, 1791, and he died Novem-

ber 19, 1855. He graduated at Union College at the age of sixteen years and took his degree in medicine at the New York College of Physicians and Surgeons in 1811. Mercersburg College, Pennsylvania and Rutgers College of New Jersey, conferred the degree of LL. D. upon him.

In 1815 he was made lecturer on medical jurisprudence in the College of Physicians and Surgeons of New York, and in 1826 he was made Professor of Medical Jurisprudence in that college, and held that chair until 1840.

In 1823 he published "Beck's Medical Jurisprudence," which passed through many American, English and German editions, and which was universally acknowledged in its day, to be the leading work on the science, and was found as often upon the shelves of the lawyer's library as those of the medical man.

For forty years of his life this illustrious man devoted himself to the advancement of the science, and most of it in the latter part of the first half of the century.

In 1853, at Albany, the capital of New York, in addressing the legislature of his native state upon the proposed establishment of a university, he demanded "the appointment, under public authority, of a Professorship of Medical Jurisprudence or Forensic Medicine." and in support of it said: "There is a person now living (Orfila), the subject of whose knowledge on the power of poisons is such that he is not only called to examine cases in any part of France, but not long since was summoned to Belgium in one, which at the time attracted the attention of all Europe. I hold that there should be two or three persons of this character appointed and paid by the government, to perform this important duty."

The most illustrious name in forensic medicine, after that of Beck, in the department of the medical jurisprudence of insanity, was that of Isaac Ray, M.D. He stands at the very head of American alienists. His treatise on "The Medical Jurisprudence of Insanity" has never been surpassed, in the century in which he lived and acted, in any country, and no work of the century produced a more profound or lasting impression upon the mind of man.

He lectured on insanity at the Jefferson Medical College, Philadelphia, and his contributions to Mental Pathology, published in 1873, enriched the literature of this branch of forensic medicine.

In considering medical jurisprudence from this standpoint, we should classify it into general divisions, and as one of these: "The Medical Jurisprudence of Insanity," Dr. Ray stands pre-eminent.

With his name should be mentioned some of the earlier alienists: Pliny Earle; Allan McLane Hamilton; Henry P. Stearns; Dr. John P. Gray, of Utica, N.Y.; Prof. Chas. H. Hughes; William A. Hammond; Prof. Charles K. Mills, of Philadelphia, Pa.; Dr. W. W. Godding; Dr. Geo. M. Beard; Dr. Nichols, of Bloomingdale Asylum, New York City; and a great body of earnest students and workers among the superintendents of American asylums and hospitals for the insane, with many names of merit among the students of neurology and psychiatry that have adorned the brilliant galaxy of American students of mental medicine.

Perhaps no work of recent date exercised a greater influence in the nineteenth century in America than did the work of Dr. Alfred Swayne Taylor, on medical jurisprudence. The work had a greater influence than the volumes put out by John C. Bucknill and Dr. Hack Tuke, which was a work of great value and entitled to high praise. The splendid work of Chaude and Briant, which was also a contemporary, being in the French tongue, could not rival these publications.

"Taylor's Medical Jurisprudence" was universally recognized as the model standard, and superceded Beck, who had so long stood at the very front. It passed through a large number of American editions, and its 12th American edition was completed in 1897.

Among medico-legal jurists, who have been prominent, I should name in the last third of the century: Chief Justice Charles Doe, of the Supreme Court of New Hampshire, to whom (more than all other American jurists combined) we are indebted for the overthrow, in many of the American states, of the innovation made in the law of England

after the McNaughten case, making the knowledge of right and wrong the test of criminal responsibility of the insane.

His associate, Judge Ladd, of the Supreme Bench of New Hampshire, and Judge H. M. Somerville, of the Supreme Bench of Alabama, who wrote the prevailing opinion of the court of that state, asserting what has come to be known as the New Hampshire doctrine, is entitled to our tribute of praise and commendation. Among the eminent men of the bar, who have taken part in the labors of the Society and in advancing its work, may be named: Hon. David Dudley Field; Hon. E. A. Stoughton; Judge A. L. Palmer, of the Supreme Court of New Brunswick; Sir John C. Allen, Chief Justice of that bench; Judge W. D. Hardin, of Savannah, Ga.; Judge Charles P. Daly, and Mr. Austin Abbott. Of those whose labors have ceased, not to mention the lustrous and brilliant names of those still living, and among medical men: Dr. James C. Wood; Dr. Frank H. Hamilton; Dr. Carnochan; Dr. S. W. B. McLeod and Dr. Fordyce Barker.

Consider the views of Chief Justice Charles Doe, of the Supreme Court of New Hampshire; Associate Justice Ladd of the Supreme Bench of that State; Judge Montgomery, of the Supreme Court of the District of Columbia, and Judge Dillon, of Iowa, all members of the Medico-Legal Society; Shaw of Massachusetts, Edmonds of New York, Bell and Perley of New Hampshire, in contrast with the language of the Lord Chancellor of England as late as 1862, who, in referring to insanity in the English House of Lords, declared that "The introduction of medical opinions and medical theories into this subject has proceeded upon the vicious principle of considering insanity as a disease," and he condemned the "evil habit that has grown up of assuming that it was a physical disease."

And it was less than 100 years prior to this utterance (1769) Lord Chancellor Blackstone said; "To deny the possibility, nay actual existence, of witch-craft and sorcery is to at once flatly contradict the revealed word of God," and also added, "And the thing itself is a truth to

which every nation in the world hath in its turn borne testimony."

The following are among the eminent French collaborators in the work of the Medico-Legal Society; Dr. T. Gallard, Ex-Secretary of the Medico-Legal Society of France; Dr. Louis Penard, Ex-President of the Medico-Legal Society of France; Dr. Devergie, Ex-President of the Medico-Legal Society of France; Mr. Ernest Chaude, Ex-President of the Medico-Legal Society of France; Dr. Devilliers, Ex-President of the Medico-Legal Society of France; Prof. Dr. Benj. Ball, author; Dr. Emile Hourteloup; Dr. Lunier; Dr. Briere du Boismont; Dr. Chevalier; Dr. Legrard du Saille; M. Hemar, Ex-president of the Medico-Legal Society of France; Dr. August Voisin; Dr. Carpentier; Prof. Dr. Luys; Marcel Briand and Dr. Foville.

Living members of eminence identified with the progress of medical jurisprudence in America: Prof. Brouardel; Dr. Motet; Dr. Lutaud; Dr. A. Leblond; Dr. Magnan; Dr. Ritti; Dr. Christian; Dr. Bertillon and Dr. Forel.

The following are deceased honorary members of the Medico-Legal Society: Prof Francis Wharton, writer on Legal Society of France; M. Barnier, President High Court of Cassation of France; Dr. Louie Penard, Ex-President of the Medico-Legal Society of France; Prof. Charcot, Paris; Sir James Fitz James Stephen, of London, England; Visitor in Lunacy, London; Dr. D. Hack Tuke, of London and Dr. Fordyce Barker, of New York.

WORKS ON MEDICAL JURISPRUDENCE.

Besides those already named, Prof. James J. Elwell, of the Cleveland, Ohio, bar, contributed a volume, "Elwell's Medical Jurisprudence" which had a large sale among lawyers and jurists.

Prof. J. J. Ordnoux was the author of a treatise entitled "The Jurisprudence of Medicine," which was published in 1869, and which was greatly used at that time and influenced public opinion and legislation at that period.

Allan McLane Hamilton, M. D., published a work in 1894 entitled "Hamilton's System of Legal Medicine."

Francis Wharton, M. D., published in 1885 a small work on "Mental Unsoundness," which was followed in the same year by a work entitled "A Treatise on Medical Jurisprudence," by Francis Wharton and Morton Stile, M. D. This was an elaborate work of 815 pages and successive editions were published in 1860, 1872 and 1873; and in 1882 a fourth edition was published. The work is a valuable contribution to the science.

Prof. William A. Hammond published several works and edited a journal of Psychological Medicine for several years.

Dean's Medical Jurisprudence was published early but did not supercede Beck or attain as much prominence as Prof. Elwell's work. He was a contemporary of Beck.

The most complete bibliographical contribution relating to the works on American Medical Jurisprudence, and also the best enumeration of the general treatises of Italy, Germany, France and Great Britain, up to September, 1876, is that made by Prof. Stanford E. Chaille in his masterly address to the International Medical Congress in Philadelphia in 1876, to which I refer the student with great confidence.

If my time permits I will submit an appendix of the later works in America, since September, 1876.

TRANSACTIONS OF THE MASSACHUSETTS MEDICO-LEGAL SOCIETY. VOL. I. 1878-1888.

CONTENTS.

The Law Concerning Medical Examinations and Inquests. 1877.

Constitution and By-Laws of the Massachusetts Medico-Legal Society.

Officers and Members of the Massachusetts Medico-Legal Society, 1878.

Introductory Address. By Alfred Hosmer, M.D., President.

The Relation which Chemistry bears to Forensic Medicine. By E. S. Wood, M. D.

The Value of Anatomical Appearances. By R. H. Fritz, M. D.

Concerning Coroners and the Theory and Practice of Inquests. By T. H. Tyndale, Esq.

Cases Illustrating the Work and Duties of the Medical Examiner. By F. W. Draper, M. D.

A Case of Arsenical Poisoning, with Fatty Degeneration of the Liver, Kidneys and Gastric Glands. By J. G. Pinkham, M.D.

The work of the Medical Examiners in 1877.

The Evidence of Still-Birth. By S. W. Abbott, M. D.

The Anatomical Changes Caused by Septicæmia and Pyæmia. By R. G. Cutler, M. D.

A Medico-Legal Case of Abortion, followed by Conviction of the Accused Abortionist. By J. C. Gleason, M. D.

The Duties of Medical Examiners Considered in their Practical Relations. By Asa French, Esq.

Clinical and Anatomical Evidences of Abortion. By C. C. Tower, M.D.

The Work of the Medical Examiners in 1878.

Medical Expert Testimony: What it is and what it should be.

The Metric System in Forensic Medicine.

The Collection of Data at Autopsies. By H. P. Bowditch, M. D.

Death by Lightning. By J. L. Sullivan, M. D.

What Constitutes the "Dead Body of a Person"? By A. F. Holt, M. D.

The Medico-Legal Relations of Alcoholism: Its Pathological Aspects. By G. K. Sabine, M. D.

On Points of Interest in the Jennie P. Clark Case. By J. G. Pinkham, M. D.

The Work of the Medical Examiners in 1879.

Address on the History and Work of the Society. By Robert Amory, M. D.

In What Cases Shall the Medical Examiner Decline to View a Dead Body? By Alfred Hosmer, M. D.

Ignorance as a Legal Excuse for Malpractice. By A. E. Pillsbury, Esq.

Conditions and Circumstances Which Should Induce the Medical Examiner to Employ a Chemist. By E. P. Miller, M. D.

The Work of the Medical Examiners in 1880.

What Constitutes a Medico-Legal Autopsy? By S. D. Presbrey, M. D.

On the Habitual Use of Poisons. By A. H. Johnson, M. D.

The McCornish Homicide Case. By C. C. Tower, M.D.

The Medico-Legal Relations of Chronic Alcoholism: Its Pathological Aspects. By G. K. Sabine, M. D.

The Medico-Legal Relations of Insanity. By Ira Russell, M. D.

The Work of the Medical Examiners in 1881.

The Gunn Homicide Case. By A. E. Paine, M. D.

Infanticide by Drowning. By J. G. Pinkham, M.D.

A Strange Case: Suicide by Blows on the Head. By O. T. Howe, M. D.

A Case of Delayed Putrefaction. By W. H. Taylor, M. D.

The Work of the Medical Examiners in 1882.

The External Appearances of Pistol-Shot Wounds. By D. B. N. Fish, M. D.

Medico-Legal Features of Life Insurance. By Max F. Eller, Esq.

Cases of Death by Drowning and by Hemorrhage. By S. D. Presbrey, M. D.

Homicide by a Wound of the Vulva. By F. W. Draper, M. D.

A Case of Death by Drowning. By George Stedman, M. D.

The Work of the Medical Examiners in 1883.

Infanticide by Suffocation. By W. H. Taylor, M. D.

On Death by Drowning. By F. W. Draper, M. D.

A Case in Doubt. By W. M. Wright, M. D.

The Work of the Medical Examiners in 1884.

The Dunbar Case. By F. K. Paddock, M. D.

The Dunbar Tragedy: Was it a Murder or Was it a Suicide? By D. E. N. Fish, M. D.

Notes on the Lawton Murder. By W. H. Taylor, M.D.

Case of Poisoning With Oil of Gaultheria. By J. G. Pinkham, M. D.

Notes on an Anomalous Arrangement of the Large Veins of the Neck. By J. G. Pinkham.

A Case for the Medical Examiner. By S. D. Presbrey, M. D.

The Work of the Medical Examiners in 1886. By S. W. Abbott, M. D.

APPENDIX.

A—Scotch Regulations Relating to the Medico-Legal Examination of Dead Bodies.

B—Letter from Attorney-General Concerning Fees of Witnesses at Autopsies.

C—Extract from the Society's Records, 1878-1879.

D—Decision of Postmaster-General concerning Blanks.

E—Extracts from the Society's Records 1879-80.

F—On the Collection of Data at Autopsies.

G—Report on the definition of "Violence."

H—Two Medico-Legal Decisions of the Supreme Court of Massachusetts, affecting Medical Examiners.

I—Extract from the Society's Records, 1883.

J—Massachusetts Laws Relating to Medical Examiners, compiled from Statutes in Force October 1, 1886.

K—Amendment of the Law Relating to Burial of Unclaimed Dead Bodies.

L—Members and Officers of the Society in October, 1887.

TRANSACTIONS OF THE MASSACHUSETTS MEDICO-LEGAL SOCIETY.

VOL. II. 1888-1898.

CONTENTS.

Historical and Statistical Facts pertaining to the Use of Arsenic as a Poison. By S. W. Abbott, M. D.

Clinical History of Arsenical Poisoning. By A. F. Holt, M. D.

Anatomical Appearances resulting from Poisoning by Arsenic. By. F. W. Draper, M. D.

The Chemistry of Arsenic. By W. B. Hills, M. D.

The Robinson Cases of Arsenic Poisoning. By T. M. Durell, M. D.

Arsenic in the Courts. By F. A. Harris, M. D.

Accidental Drowning. By F. Winsor, M. D.

A Murderer's Dying Confession Disproved by Surgical and Anatomical Facts. By B. E. Cotting, M. D.

Medico-Legal Examinations in Cases of Alleged Injuries to the Brain and Spinal Cord. By P. C. Knapp, M. D.

Medical Testimony from a Legal Stand point. By H. N. Sheldon, Esq.

Was it Murder or was it Suicide? By F. W. Draper, M.D.

Sudden Death from Diseases of the Organs of Circulation: A Discussion.

Abdominal and Pelvic Emergencies Causing Sudden Death. By J. C. Irish, M. D.

Affections of the Nervous System Causing Sudden Death. By P. C. Knapp, M. D.

The Coy Moy Murder Case. By F. K. Paddock, M. D.

Identification of the Human Skeleton. By S. W. Abbott, M. D.

Sudden Death Due to the Heart. By W. T. Councilman, M. D.

The Rights and Duties of Medical Examiners in Homicidal Cases. By W. A. Dolan, M. D.

The Leach Case (Abortion). By T. M. Durell, M. D.

Pancreatic Hemorrhage as a Cause of Sudden Death. By W. F. Whitney, M. D.

What Cases shall a Medical Examiner "View"? By J. A. Mead, M. D.

Suicide or Homicide? A Case for Medico-Legal Diagnosis. By C. S. Holden, M. D.

A Case of Homicide, with Comments. By A. L. Hodgdon, M. D.

Death "Supposed to have been Caused by Violence." By Z. B. Adams, M. D.

Was it Murder or Suicide? By E. P. Hurd, M. D.

The Farror Murder Case. By J. A. Mead, M. D.

The Post Mortem Signs of Drowning. By G. de N. Hough, M. D.

A Case of Criminal Abortion with Peculiar Features. By W. S. Birge, M. D.

The Gilbert Murder Trial:—

A Medico-Legal Review. By F. W. Draper, M. D.

The Defendant's Mental Condition. By G.F.Jelly,M.D.

The Microscope as a Witness. By W. F. Whitney, M. D.

A Case of Homicide Without any External Marks of Violence. By S. D. Presbrey, M. D.

A Murder by a Stab-Wound of the Pulmonary Artery. By O. J. Brown, M. D.

The Crosby Homicide Affair. By J. F. Croston, M. D.

Two Cases of Medico-Legal Interest. By J. G. Pinkham, M. D.

Identification of a Human Skeleton. By Robert Burns, M. D.

Concerning Criminal Abortion. By E. G. Hoitt, M. D.

Legal Value of Dying Declarations. By Daniel March, Jr., M. D.

Three Deaths from Head Injury. By F. H. Baker, M.D.

The Iodine Test for Semen. By Wyatt Johnson, M.D.

The Duties of a Medical Examiner. By H. M. Knowlton, Esq.

The Medical Examiner as a Witness. By Sherman Hoar, Esq.

The Identification of Seminal Stains. By W. F. Whitney, M. D.

Sudden Death by Alcoholism. By E. P. Hurd, M. D.

A Case of Gun-Shot Wound of the Head. By W. D. Swan, M. D.

The Kaiserling Method of Preserving Anatomical Specimens. By W. F. Whitney, M. D.

The McCloud Murder Case. By F. S. Ganedy, M. D.

Contre Coup and its Relations to Head Injuries. By B. H. Hartwell, M. D.

Carbolic Acid Poisoning. By Frank Holyoke, M. D.

The Butters Murder Case. By G. E. Titcomb, M. D.

Cholin in the Iodine Test for Semen. By W. F. Whitney, M. D.

THE RHODE ISLAND MEDICO-LEGAL SOCIETY.

Was organized June 11th, 1885. No published work containing a record of its transactions or a list of the papers read before it.

THE CHICAGO MEDICO-LEGAL SOCIETY was organized in the City of Chicago in the year 1886. There were eighty-four physicians upon its first roll as announced by the Chicago Legal News.

This body has since maintained a thorough and active organization and its officers have been selected from the prominent men of both professions.

The papers read before it have been of a high character by distinguished members of the bench, bar and of the medical profession. I have been unable to find any volume of them.

PHILADELPHIA SOCIETY OF MEDICAL JURISPRUDENCE was organized more than twelve years since in the City of Philadelphia and had a large and influential roll of membership. The papers read before it were of a very high order and were valuable contributions to the literature of the science of forensic medicine.

DENVER MEDICO-LEGAL SOCIETY.

In 1890 the Denver Medico-Legal Society was organized greatly through the efforts and labors of Prof. J. T. Eskridge and Dr. Donald McLennan.

SOCIETY OF MEDICAL JURISPRUDENCE OF NEW YORK CITY, was organized and incorporated March 5th, 1883.

The following papers were read and discussed before the Society in 1898-1899:

Address by the President-elect, S. B. Livingston, Esq., on the "Profession of Law and Medicine, a Comparison and Contrast."

"Circumstantial Evidence," by E. H. Benn, Esq.

"Expert Evidence from the Standpoint of the Witness," by F. X. Dercum, M. D., Ph. D.

"The Legal Disabilities of Natural Children, Justified Biologically and Historically," by Edward C. Spitzka, M. D.

"The Development of Mental Competency from a Presumption of Law into a Question of Fact." By Hon. John Dewit Warner.

"The Status and Legal Rights of the Soldiers," by J. Hampton Dougherty, Esq.

"Apparent Death," by Henry J. Garrigues, M. D.

"Expert Medical Testimony, a Defense of the Present Procedure," by Hon. John Woodward, Justice Supreme Court, Appellate Division.

Address by the President, S. B. Livingston, Esq., on "Citizenship and the Age of Maturity."

The Medical and Legal Aspect of Hysteria Induced by Injury," by Pearce Bailey, M. D.

"Unreliability of Drugs," by Edmund J. Palmer, M.D., Commissioner of Quarantine.

"Natural Law vs. Statutory Law," by Gino C. Speanza, Esq.

"The Logical Character and Function of Opinion Evidence," by William Allaire Shortt, Esq.

"Extremes in Anthropometry with Reference to the Bertillon System," by Edward C. Spitzka, M. D.

"The Medico-Legal Autopsy, a Plea for Medical Precision and Legal Recognition," by Hugh Hamilton, M. Sc., M. D., Harrisburg, Pa.

"The Law and Science of Capital Punishment by Electricity," by Roger M. Sherman, Esq.

NOTE—This paper will appear in full in the Medico-Legal Journal.

AUTOPSYCHORHYTHMIA OR REPETITION PSYCHO-NEUROSIS.

Morbid Rhythmic Forms of Automaticity and Rhythmic Forms of Mental Alienation.

By C. H. HUGHES, M. D., St. Louis.

THE pathetic story of the accountant who, in a state of nervous exhaustion and cerebrasthenia, was carried to Bethlehem Hospital pitifully repeating, "once one is two, once one is two," the mistaken calculation having ruined him, is well known in the literature of nerve perturbation. The record is a story of brain exhaustion often repeated in other forms, the real nature of which is often not well understood in time, either by the family medical adviser or the public, to avert disaster. There are other phases of this morbid mental state in which a fear of mathematical inaccuracy or mental agitation on account of the interrupted rhythm are not characteristic, but where simply an insistant impulse to automatic repetition exists that will not readily down at the bidding of the normal will, even though regard for the proprieties of environment demand suppression. The constant repetition of a rhythmical movement in the mind, regardless of time or place or circumstance and which an enfeebled volition can not regulate to conform to the requirements of environment, characterizes this symptom of brain overstrain and psycho-motor automatic impulse. Neuropathic and consequent psycho-motor

*Presented to the Section on Nervous and Mental Diseases of the Third Pan-American Congress at Havana, Cuba, February, 1900.

neurasthenia appear to be at the bottom of this condition, or have probably been, at some time in life of the nervous mechanism, before the inception of the morbid automatic repetitional impulse. It is as much a symptom as the ill at ease, restless, tired and fidgety state and morbid phobias of neurasthenia are.

Tuke (Psychological Dictionary) touches this subject closely under the discussion of imperative ideas, corprolalia and obsession, and mentions the instance of a friend who wrote him after composing a poetical work, saying in his letter he longed to get the poetical work out of his brain and begin on "fresh fields and pastures new," but found it "difficult to make the vibrations cease when the intellectual chimes have been set to a particular tune," recognizing the brain automaticity which is an essential feature of what we are attempting to describe.

We would take this case from the class of imperative ideas and place it in a new psychologic class like the following, to which we would apply the new term we coin —autopsychorhythmia or repetition psychosis or psychoneurosis.

A handsome, bright and accomplished young lady of eighteen years, with a maternal unstable nerve heritage but a healthy father, a student of music, advanced and promising, came to me from a distant city suffering with exaggerated reflexes, insomnia, hyperideation, troublesome illusional fancies and a musical rhythm continually running in her mind. Day and night the automatic repetition of tunes and musical cadences ran constantly through her mind. Upright or recumbent, in waking state or in her fitful sleep, the automatic rhythm persisted. She thought and dreamed of music and felt its rhythmical influence continually throughout her nervous organism. Her pulse was rapid, her heartbeats overforceful, her pupils were abnormally mobile and dilated, her digestion was tardy but finally adequate, bowels torpid, skin relaxed and she felt continually tired.

She recovered under rest, change of environment, cessation of study and piano practice, withdrawal from

musical companionship, brain tranquilizing galvanizations, aether menthol evaporating lotions to head, chemical brain restraint and pepsines and laxatives. Had she continued much longer in her vicious course of incessant overstudy, this handsome and promising girl would have passed from the morbid psychic automatism of cerebral fatigue excitability into positive insanity as I have seen others pass, especially ambitious, self-sustaining teachers, beyond the line that marks the morbid psychic automatism of incessant overaction into the realm of actual insane aberration. These cases can be saved, if treated in time by the alienist and neurologist, but not by any local treatment outside of the brain, unless, perchance, the change of environment and its influences are so tranquilizing, diverting and restful a kind as to bring about through nature's unaided resources the needful recuperation of the nerve instability and morbid automatism of brain overtax. If these unfortunates get only throat treatment they are likely to be lost, unless perchance, the brain rest from cessation of work and changed environment should bring about a cure.

A young unmarried man who speedily became hopelessly insane and soon after died demented, displayed the beginning of his breakdown by exclaiming *sotto voce*, while riding with me, "Beethoven! Beethoven! "This he would continually repeat. An aged lady over seventy years of age, who became somewhat demented soon after and senile, would often repeat, "Yes, I love God! Yes, I love God!" in the midst of conversation and when alone.

A music teacher and composer of great genius, and now perfectly well, could not refrain when he first saw me, from going through the movements of fingering the keyboard of the piano and a tra la la accompaniment. He had just finished a Herculean task and was on the verge of a disastrous breakdown characterized by profound insomnia, marked general restlessness and psychical excitability.

A charming young lady patient of mine at the asylum at Fulton, Mo., in 1870 first attracted attention by repeating a call to the chickens, of which she was very fond at home.

"Chicky, chicky, chicky," she would repeat, and as her insanity became pronounced she would say "Chicky" all day and far into the night until put to sleep on hypnotics. A suppression of the menses accompanied or preceded her insanity and returned with her return to sanity. She was recovered at the end of six weeks' treatment with bromide of potassium, timely hypnotics, tonics, aloetic laxatives and gelsemium.

Another patient of mine at Fulton, a man of upwards of fifty years of age who had gone insane and turned gray in a few weeks time under the strain and misfortune of the civil war, having lost most of his property, principally in slaves, and become suddenly bankrupt, assumed a bent-over attitude as he walked about night and day exclaiming, "My God, how can I stand it; how can a man carry the world on his shoulders?" This man, who was possessed of good physical vigor for his years and was an excessive user of tobacco, reminded me of the mythological pictures of the mythical Atlas. After the acute stage of his malady had passed he would repeat only the words "How can I stand it?" and this utterance he would make years after the inception of his insanity, even at times when provoked to smile or when asking for a chew of tobacco, after the fires of the early mental conflagration had gone out and his life seemed to be no longer one of psychic pain. The scar remaining among the cerebral cinders kept up the automatic cerebral refrain, "My God, how can I stand it? How can I stand it?" long after he had ceased to feel the poignant mental pain of the acute stage of his disease.

The peculiarity of Samuel Johnson who, after a good deal of mental strain, could not pass a single one of the stone posts which stood at regular intervals along the pavement of the streets in his native town of Litchfield without laying his hand on the top of each one is also apropos to our subject. Fortunately Johnson never broke down seriously in his nerve centers. His repetition automaticity did not pass to an extremely morbid stage.

Under the caption of "Letter Counting," the Paris correspondent of the *British Medical Journal* mentions a case

in point reported to a Bordeaux society by Dr. Ginostos. The subject was a young man who has, since the age of ten years, had an irresistible impulse to count the letters in a word or phrase that he hears, sees, speaks or thinks. At night he sleeps without dreaming. When he does not talk, he invents phrases and counts the letters in them. Thirty-two is a number that gives him satisfaction; thirteen displeases him, but nevertheless he does not recoil from arranging phrases with thirteen letters in them. This unceasing automatic operation does not in any way interfere with his daily work, or reading or carrying on a conversation. A reference to this interesting case appears in the columns of a number of the *New York Medical Journal*, which, I do not at present recall. Echolalia, corprolalia, etc., are likewise somewhat germane to this subject, as showing a similar but graver state of repetitional impulse and obsession, but rhythmic repetitional automaticity is what we are now considering. There are likewise references of interest, not wholly malapropos, in Forbes Winslow's *Obscure Diseases of the Brain and Mind*. Indeed they may be found in many books of the literature of psychiatry.

I have heard a chronic alcoholic repeat over and over through the day, "Little Bo Peep, he lost his sheep, and doesn't know where to find them," etc., and have known chronic lunatics who would repeat some long-ago-learned distich or rhyme or some insanely-constructed jingle of words in maudlin monotone, from the day's beginning to the ending thereof, in all their waking hours, some of them singing their peculiar song, like the dying swan, to the end of their unfortunate lives. Some would alternate their phrases backward, a transposition from the way the verses were written. If we carefully scan the speech and song of the insane we will find much not yet recorded and many forms of this morbid psychic display of automaticity. It has as many peculiarities of expression as the singularities of autograph and speech in agraphia and amnesia and other forms of aphasia.

More extended rhyming forms of speech or song, evincing mental spontaneity and sometimes marked ability of

improvisation among the insane, are interesting and common in the psychiatric hospitals, but they do not strictly belong to our present subject.

"A lady who had been eighteen months insane detailed to Forbes Winslow, after recovery, the symptoms of her derangement. She informed him that for nine months previous to her being considered mentally afflicted, she was fully aware that she was not 'quite herself.'

"'My general health' she said 'became much out of order, and I had a severe attack of English cholera, followed by great debility, which confined me to my bed for several weeks. It was during this illness that my foolish fancies began to annoy me. At this time I used to talk out loudly to myself, a thing I never did before. This was irresistible. I ejaculated the most foolish remarks, and at times too with wonderful volubility of speech. I did my best to control myself, in this particular, but found it difficult to do so. I was quite conscious that my mind was affected, and yet no delusion had taken possession of my intellect. For several days I succeeded, by strong efforts of thought, in checking this ridiculous inclination to utter absurd expressions, but I awoke one night in an excited state, from a troublesome dream, and I began then to vociferate a number of most incoherent expressions to this effect: "You shall do it." "No you sha'n't." "He is like Satan." "Why don't you say the devil?" "Ah! Ah! Ah!" "It is beautiful." "No he devils." "I can't be saved." "You have no hope." "Suicide." "Poison." "Hang yourself." "They are after you." These strange remarks continued for nearly two hours, when I fell asleep, and arose much relieved. My mind, however, was for sometime afterward not in a right state, although I had intermissions from the misery I suffered. Eventually I became quite insane, and I am informed, remained so, for nearly eleven months. During the whole of that time, I fancied I was in hell, and tormented by evil spirits. I thought every person near me to be a devil. My mind was gradually restored to a healthy state. I cannot say when I first began to feel that I was recovering.'"

I should like as forcefully as possible to call your attention, as I think Forbes Winslow has done before me, to the significance of absent-mindedness, abstraction, inattention and what, since Carpenter, we have called psychic automaticity, as precursors of mental aberration. Of course these states signify little, unless they are progressive or until they have reached the verge of morbidity with profound and uncontrollable disregard of the proprieties and harmonies of environment. Nevertheless they are worthy of note and mean much, very often, to the closely observant alienist clinician. They may serve to start him in the right direction of search for grave impending psychical malady in its avertable stage.

I saw once a charming-voiced lady suffering with this form of cerebrasthenia and neurasthenia, who, subsequently while abroad cultivating her voice, developed a condition of rhythmical chanting psychic aberration, *folie chantant*, while mistakenly having her throat and vocal cords treated. She once consulted me. I saw the impending catastrophe and could have averted it, but was not asked to treat her further and my further advice of prompt brain rest and nerve recuperation was not followed and the catastrophe came. Her trouble began with musical cerebrasthenia.

A young manustupral neurasthenic was brought to me by his father some years ago. During my first examination of him he interrupted the proceedings, saying often "It don't correspond." He had been a studious youth of good morals, and his mind was probably vaguely reverting in automatic manner to some problem in mathematics worked at in other days. I could not get him to say what he meant or to take treatment. After that he passed speedily into stuporous dementia and soon died. His mother was neurotically enfeebled at the time of his birth and his malady was evolutionally predestined, the masturbation having been an incidental developmental sequence probably, as well as contributing cause.

A gentleman of extensive business affairs who came to me on the verge of financial and business bankruptcy, but now after many years of health, successful in a new but

less harassing line of business, would continually say to himself, "Too many irons in the fire, too many irons in the fire." His intellect was clear but his brain was jaded and unstable, in that stage of cerebrasthenia that so often precedes the final brain-break of insanity. The closing out and winding up of his business saved him for recuperation and another and less harassing and more successful career.

These cases are significant to the neuropsychologic clinician and amenable to cure if timely treated and if we are not misled from the brain, which is the central origin of the trouble, to the peripheral symptomatic expression. Insomnia and other forms of restlessness precede and accompany their expression, as likewise do disturbed visceral states dependent upon vagus innervation. Like most voice failures and many altered chirographic expressions, the autographs of morbid brain and nerve states, as in general paralysis, disseminated and posterior spinal sclerosis, the disease is not in the organs of expression in which the symptoms show, but chiefly in the brain, the allied peripheral neural mechanism only subserviently participating. Other clinical illustrations might be cited from the author's experience, as, for example, some forms of choristers' and pianists' palsy, etc., but these are omitted for the sake of essential brevity and to avoid possible contention. To an audience of savants like that before me one word will suffice for many.

This morbid state of the nervous system is so distinctively peculiar as to be entitled to distinctive designation. All have observed it, especially those who have added to their neurologic experience opportunities for extensive observation in psychiatry. It is a symptom and precursor, if unarrested, of insanity, and though it may stop short of the greater denouement, by fortuitous change in the life habits or thorough, timely, skillful treatment of the individual, it is a serious condition of the brain, demanding our best thought and effort for its prompt relief and calling for cautious, forceful admonition as to the impending peril of its persistence.

I have used, for want of a better term, autopsy-

chorhythmia, since under the dominance of this morbid state of brain and mental expression the mind loses to a degree its volitional spontaneity and becomes abnormally automatically rhythmical in psychic feeling and expression. And when the stage of insanity is reached, the mind so expresses itself, regardless of the proprieties of place or occasion and out of normal harmony with rational environment.

The distinction between morbid and normal autopsychorhythmia is in the persistent and inopportune obtrusion of the rhythmic repetition in manner not in harmony with the environment of the individual. The will does not attempt its suppression, or if it does, it cannot, when and where the proprieties demand it, whereas, so long as this symptom phenomenon remains within normal limits, it selects suitable occasions for permitting the rhythmic repetitions that run through the mind, to go on uninterruptedly and can effectually check them on proper occasions.

All perfected education of the psychic neuron centers develops an automatic aptitude for easy repetition. This is not a morbid feature of mental action and is not what I have attempted to describe. It is the morbid aspects of this mental state, when normal regulated control is impaired and, in the graver conditions, lost, to which I invite attention as of significance to the neurologist and alienist. It is evidently a lesion, more or less grave, of the psychic inhibition centers that claims ours consideration and demands attention from the profession that it has thus far not adequately received. There is a neuriatric with a psychiatric, as well as a psychologic side to this interesting and important subject. It is the latter to which I would call professional attention.

Involuntary psychic automaticity in many forms, including the feature we are now discussing, is a forerunner of grave insanity which displays itself paramountly in lessened inhibitions of normal mental action as well as impulsions to erratic conduct and in the many forms of automatic mental aberration revealed in the actions and speech of the acknowledged insane, both within and without asylums.

All symptoms, therefore, which point in that direction even though remotely, claim thorough investigation and prompt remedial endeavor. Brain strain like that under discussion passing the line of morbid autopsychorhythmia is always a matter of gravity and solicitude. It is the limp that precedes the paralysis of the mental gait. The beginning spasm of overuse that may end in wrong movement. The brain thus going wrong should be made to rest and be brought back by neuropsychological treatment into habit of normal action.

Dr. Martin W. Barr in the January, 1898, number of the *Jour. of Nerv. and Ment. Dis.* discusses an interesting subject akin to our theme and rather more germane to it than the various forms of aphasia under which it is generally considered, namely, echolalia. Hammond, copying from Winslow, gives the case of a woman who always said at her prayers "our Father which art in Hell," meaning to say Heaven, and the case of a man from his own observation who said automatically "saw my leg off" to any question asked. There is no connection, in my judgment, between my subject and any form of hypothetical transcortical aphasia or to the motor aphasia of Broca's speech center. It is neither echolalia nor corprolalia, though I agree with Tuke that echolalia and corprolalia as some forms of aphasia and other speech defects do, portend, like autopsychorhrthmia, insanity. They are morbid impulsions, and morbid impulsions are lesions of inhibition not far in advance of oncoming psychic aberration. Corprolalia, a tendency to express as well as to repeat foul language, is often heard among the insane, even among naturally modest and cleanly minded women.

Mills* records the case of a refined and cultured lady who would suddenly swear and gesticulate, and a boy who would suddenly utter filthy language and move his head, shoulders and arms violently. These are common symptoms in the observation of insanity.

These two cases are quoted by Barr as combining palmus or myriachit and corprolalia, as they undoubtedly do.

*Review of Insanity and Nervous Diseases, September and December, 1891.

The Jumpers of Maine are victims of impaired volition and morbid psychomotor irritation and impulse, some of them not far removed from insanity.

Mills then very properly classes echolalia under morbid impulse rather than aphasia* and had he rested there he would have remained on undebatable ground but in a later article, as Barr observes, he classes true echolalia as a characteristic symptom of transcortical or suprapictorial sensory aphasia.†

A similar but not the same state of mind to that of autopsychorhythmia may be seen in the feeble-minded as in the volitional repetitions of Barr's pupils at Elwyn, Pa., which he discribes as echolalia. The boy Kirtie repeating "Kirtie, come to school tomorrow; Kirtie, come to school tomorrow morning," etc., is similar but not the same. It is the voluntary habit of a feeble mind to fix a mental impression. Something similar is sometimes also the habit of the infantile mind when learning to speak. The feeble and the morbid brain sometimes come in close touch in mental operation.

ADDENDUM.

The form of insanity in my observation to which autopsychorhythmia tends is that in which imperative conceptions predominate or have predominated in the initial stage of the mental disease. In aggravated form it is an imperative, resistless impulse to repetition of psychic impression in the form of verbal expression. In the Dictionary of Psychological Medicine Tuke broaches this subject under the definition of imperative ideas, but he does not compass it. He briefly discusses there under echolalia and certain of the morbid fears of neurasthenia, but my subject does not include morbid fears, illusions or hallucinations, though they may coexist with it. 'It means a tendency of the mind more or less resistless to continually and non-volitionally

*American Text Book of Diseases of Children; Speech Aspects and Anomolies, p. 663, quoted by Barr.

†Echolalia. By Martin W. Barr, 6th page. Dercum's Text Book on Nervous Disease, p. 440, 1st Edition.

repeat its once volitional actions even at inopportune time and place. It is a habit volitionally induced which has passed into a too often invoked normal mental morbid automatic impulse of over brain strain or excitation. The habit excites the patient's concern and sends him, if he is an intelligent man, familiar with the possible resources of neuriatry, to seek relief in neurological medical advice and remedy.

When this condition displays itself in unrestrained impulse of speech or song to the chagrin of the individual and surprise of his friends, it is an act out of harmony with his rational character and environment and is then initial insanity.

Another feature of our subject is shown in a tendency to imitative acts, such as grimaces and stuttering and spinal cord and motor center movements(Jumper's palmus), which by often and long repetition have become organized automatic impulsions no longer volitional with the individual and which sometimes are seen to pass into the acts of the insane. To discuss these now *in extenso* would make this paper too prolix.

In the ALIENIST AND NEUROLOGIST for January, 1897, under the caption Imperative Conceptions, I have discussed more *in extenso* this subject. I have there recorded the case of a victim of corprolalia, who upon being advised to quit breaking out with sudden profanity, said: "I can't; I would that I could. I go about my work crying and talking. I will say, 'I will not do that any more,' and it will not be five minutes until I will be at it again," etc., etc. "I think and say such awful things. I never did so before and do not believe I want to now."

Discussing echolalia, Martin W. Barr records a case under his observation of a beautiful and refined girl attending a boarding school who would at intervals give sudden expression to three words successively, the first vulgar, the second foolish and the third profane.*

This condition, in some of its features, is related when in intense morbid degree, to our subject and proves its psychopathic relation and grave alliance.

*Echolalia. *Jour. Ner. and Ment. Dis.*, Jan., 1898, p. 20.

Morbid autopsychorhythmia has relation to the spasmodic word outcries of the insane, (corprolalia and echolalia, etc.), similar to the rhythmic spasm of athetosis in comparison with the jerky spasm of tetanus, chorea or the spastic movement of lateral sclerosis.

The pathological lesion of autopsychorythmia is evidently in the mind area of the brain cortex. It is truly transcortical and not focalized exclusively in the speech area. It is a psychical and not purely psychomotor involvement. A psychical lesion shown in peculiarity of psychomotor expression.

If in "this frame the bearings and the ties, strong connections, nice dependencies," an ancestral "blot upon the brain," has left for transmission a latent hereditary scar of aberrant mental action, we may expect to see the psychic perversion of insanity develop under stress of brain and mind, such as destroys or weakens its normal regulating power. "That way madness lies; let us shun that." It may show in obscure, if not in plainer form or in mental eccentricity, to mark and mar the after life.

A STUDY OF FOUR CASES OF MENTAL DISEASE AND FOUR INTRACRANIAL TUMORS CONNECTED THEREWITH.

By J. W. BLACKBURN, M. D.

Pathologist to the Government Hospital for the Insane.*

CASE I.

Hemorrhagic spindle-celled sarcoma of the cerebellum and multiple soft fibromata of the skin.

A. B.; AGED 61; white; single; laborer; late soldier; nativity, Pennsylvania. Mental disease, chronic epileptic mania; duration over four years. The patient was admitted to the Central Branch National Home for Disabled Volunteer Soldiers, September 2, 1892. Medical history of chronic rheumatism, hemorrhoids and epileptic seizures. He had fits of violence at intervals of four or five days, in which he tried to injure his attendants, break furniture, etc. Mental power weak when admitted to the Soldiers' Home.

On admission to the Government Hospital for the Insane, May 4, 1893, he was weak; was soon confined to his bed; moderately demented; memory, perceptions and comparative faculty all impaired, but he could talk rationally, for the most part. He had no delusions, but showed progressive dementia, with occasional attacks of impulsive fury, in which he would beat his bed and attack anyone coming within his sight or reach, at the same time uttering inarticulate cries of rage. These furors were of brief duration,

*Abstracted from the Forty-fourth Annual Report of this Institution.

and were followed by short periods of confusion, with rapid breathing from excitement and exertion, to pass into the usual state of quiet dementia.

The whole body was covered by soft fibrous tumors of the skin, varying in size from the smallest visible nodule to the size of a walnut, and in certain regions the skin hung in pendulous masses of the same character as the tumors. His general health was fair, aside from weakness, and there was no evidence of organic disease other than of the brain and the dermal growths. He had no paralysis nor altered sensations other than impairment of acuteness, though the mental dullness of the patient made the physical examination difficult.

The patellar reflex was somewhat exaggerated. There was no appreciable affection of the cranial nerves; no headache; no neuralgic pain; sight was not appreciably affected. He had occasional attacks of vomiting, and suffered from vertigo on assuming the erect posture.

No convulsions occurred for more than a year after his transference to the Toner Building, August 14, 1894, except the psychical attacks of rage and violence. In the summer of 1896 the first epileptic convulsion occurred, after which the psychic attacks were completely superseded by those of distinct epileptic character. Dementia progressed rapidly during the last few months of his life, and death occurred suddenly November 13, 1896.

The progressive impairment of the cerebral functions and the degree of physical and mental failure suggested organic disease of the brain, but otherwise there were no symptoms to differentiate the case from one of chronic epilepsy.

Autopsy six hours after death.—Rigor mortis not developed. The whole body was covered with soft fibrous growths of the skin, which varied in size from an inch in diameter to a pin-head size. Some of the growths were pedunculated; all were very soft; some were a little darker than the surrounding skin, and some the same color. The forehead was thickly studded with the growths, and they were especially numerous on the arms. Over the right

gluteal region, outer and lower portion of the right thigh, and outer aspect of right leg below the knee, the skin seemed to hang in large masses, which appeared to be of the same character as the tumors. On the right leg, just below the knee, was a somewhat more tumor-like mass nearly three inches in diameter. The large pendulous masses are of the same nature as the circumscribed growths, but are less sharply defined from the normal skin. By some pathologists they are regarded as continuous outgrowths, closely allied to elephantiasis; by others they are believed to be diffuse hypertrophies of the skin. They are frequently associated with soft fibromata of the skin, and must be regarded as due to the same cause.

Section of the tumors showed them to be very soft and succulent, somewhat less fibrous than the dermis and a little less elastic, so that the tumor tissue projected from the cut surface as the skin retracted. In hardening, the skin over the tumors became greatly wrinkled and shrank away from the tumor mass, and the whole growth was greatly reduced in size.

Cranium: Antero-posterior diameter of skull, 7¾ inches; transverse, 6 inches. Skull a little thicker than the average; shape symmetrical; sutures rather indistinct. On the outer surface were a number of small nodular exostoses slightly raised from the surface of the bone. The dura mater was not abnormally adherent to the bone, except over a small area in the anterior part of the left cerebellar fossa, where it was also adherent to a tumor, which was imbedded in the left hemisphere of the cerebellum. The general surface of the dura at this situation was smooth, and there were no indications of the growth having originated from the dura mater.

Brain: Weight of right hemisphere, 23½ ounces (666.2 grams); left hemisphere, 23¾ ounces (673.3 grams); cerebellum, pons and medulla with the tumor, 8 ounces (226.8 grams). The subdural space was dry and there was a marked degree of intracranial pressure indicated by flattening of the convolutions against the dura over the whole convexity. Embedded in the outer anterior part of the left

cerebellar hemisphere was a hemorrhagic tumor about an inch and a half in its long diameter and an inch and a quarter in transverse diameter. The growth was irregularly oval in shape, with its long axis parallel with the horizontal plane of the cerebellum. Incision into the growth showed the greater part of the mass to be blood clot, the remainder of the tumor tissue of moderately firm consistence. Though the blood had coagulated into a firm clot it did not appear to be of long standing, as no degenerative changes had taken place in the blood. A firm capsule had retained the extravasation and the hemorrhage did not appear to have added much to the size of the growth. It was therefore supposed to consist for the most part of infiltrated tissue, and such the microscope proved it to be. The fifth nerve was stretched over the superior surface of the tumor, showing that it started at the extreme lower and anterior portion of the cerebellum. The pons was displaced toward the right, and the growth encroached upon the seventh and eighth nerves at the upper part of the medulla. Where the growth was embedded in the cerebellum it had caused loss of substance and some softening.

The vessels at the base of the brain were not diseased; ventricles greatly dilated; brain substance œdematous and soft; perivascular spaces enlarged; no gross lesions in any part of cerebrum, except some induration of the hippocampi and uncinate gyri.

The cerebellum, pons and medulla were preserved intact as a museum specimen, and therefore were not examined by section.

Thorax: Some bands of chronic pleuritic adhesions were found on the right side. At the apices were found some old pleural scars and some small grayish nodules, supposed to be tubercular deposits. Large hemorrhagic areas were scattered throughout the other portions of the lungs. The left lung weighed 19 ounces (538.6 grams); the right, 24 ounces (680.4 grams.

Heart: Weight, 12 ounces (340.2 grams). Pulmonary valves normal; tricuspid a little thickened; aortic valves were a little thickened and showed some adhesion to each

other at their attached edges. Mitral valve slightly thickened at its edges. Heart muscle firm; aorta normal.

Abdomen: The spleen weighed 12¼ ounces (347.2 grams); capsule wrinkled; pulp very dark, full of blood and soft.

Kidneys: Weight of right, 4¼ ounces (120.4 grams); left, 4¾ ounces (134.6 grams). The organs contained more blood than normal; capsules slightly adherent; surfaces showed some depressions and were a little granular; cortex was somewhat reduced in thickness. The urinary bladder showed some hypertrophy and enlargement of the middle lobe of the prostate gland.

Liver: Weight, 48½ ounces (1375.9 grams). The tissue showed slight passive congestion. Gall-bladder contained a small quantity of dark bile.

The other abdominal organs were apparently free from disease.

MICROSCOPICAL EXAMINATION.

Tumor of brain: The greater portion of the bulk of the tumor was composed of blood and tissue so infiltrated with blood that it was impossible to make sections of it. The greater part of the tissue which remained outside the hemorrhage area was composed of spindle cells in close proximity to each other arranged in wavy or curved bands running in every direction. The spindle cells were delicate, and closely applied to each other, so that it was difficult to see the cells except in very thin sections and where accidentally torn apart, and the direction and arrangement of the cells was mainly indicated by the nuclei. Some fields were found in which round cells predominated, lying among delicate connective tissue fibrils. These fields were found most frequently near the seat of hemorrhage, and it is possible that many of the round cells were leucocytes. In the midst of masses of spindle-celled tissue groups of round nuclei were often found; these were supposed to be transverse sections of the nuclei of spindle cells. In the purely cellular portion of the growth no connective tissue was visible, but in certain fields the process of fibrillation

was far advanced, and in some of the round-cell areas the intercellular substance was distinctly fibrillated. Some areas were found in which the structure resembled the early stages of granulation tissue, and indeed there may have been some reactive inflammatory tissue formation. The structure of the growth was in fact very confusing, and diagnosis was only made by examination of large areas composed exclusively of spindle cells. The blood vessels in the cellular tissues were of the type found in all sarcomata; they had imperfect walls composed of flattened cells, and ran as mere channels through the tissue; in a few, however, hyaline change had thickened the walls and even obliterated the lumen. In the fibrous tissue some of the vessels had thick fibrous or hyaline walls and some were mere channels in the tissue lined with flattened cells. No vessels with perfectly developed walls were found in any of the tumors of this class, and, in fact, it seemed that perfect vessels are not developed in the low grade of connective tissue found in these neoplastic structures. Large blood-channels lined with flattened cells were found in the tissue adjoining the hemorrhagic portion of the growth. Though the structure of the growth was somewhat perplexing and the origin uncertain, it was diagnosed a spindle-celled endothelial sarcoma, probably of the membranes of the cerebellum.

The soft fibromata of the skin: These tumors presented the usual appearances of such growths. They consisted of delicately fibrillated connective tissue richly nucleated with small, elongated, or rod-like nuclei, frequently curved or twisted. In all parts of the sections brightly stained round nuclei were seen, which were transversely cut sections of the rod-like form. In certain places groups of round nuclei were found, probably centers of growth. In some parts of the sections nuclei of both forms were very numerous, giving the tissue a general resemblance to spindle-celled sarcoma; but careful examination would show that in the fibroma the nuclei are among the fibers and not within spindle cells, and that in the fibrous tumor the tissue is more mature and dense than in fibro-sarcoma. For com-

parison with the brain tumor I have drawn two fields from the fibromata—one showing a richly nucleated field, the other the more typical appearance of the growth.

The blood vessels in the denser and older portions of the tumors were not numerous, and many presented the appearance of mere channels in the tissue lined with endothelium. In the more cellular part of the tissue many new-formed blood vessels were found in all stages, from capillaries to fully developed arteries and veins. On the borders of the tumors adjoining the true skin the deeper parts of coil glands, sebaceous glands, and deep-hair follicles were included in the new tissue. Peripheral nerve trunks were found occasionally within the tumor tissue, and though there was undoubtedly some increase of the connective tissue of the nerves, especially of the epineurium, there was no other evidence of connective tissue of the nerves entering into the formation of the growths.

Brain: The pia mater was thickened; the blood vessels of the brain were tortuous and lay in wide perivascular spaces with much altered blood pigment around them. The nerve cells were granular and excessively pigmented; perivascular and pericellular spaces enlarged. The cerebellum, pons and medulla were not examined.

Lungs: The sections from the apices showed chronic tubercular deposits in the alveolar walls and around the bronchi. The tubercular nodules were surrounded by dense masses of round cells in which were many blood vessels. The central portions of the nodules were composed of epithelioid cells of various sizes and shapes apparently in the early stages of tissue formation. No vessels were found in the central cell masses, but degeneration had not taken place on account of the vascular supply to the peripheral parts of the nodule. Very few giant cells were found. Some of the alveoli were narrowed by thickening of their walls and contained a few epithelial cells. In the hemorrhagic areas the alveoli contained blood and the vessels were engorged.

Spleen: The capsule was thick, the trabecular prominent. The pulp showed great engorgement, large areas contained nothing but blood.

Liver: the tissues showed nothing abnormal except slight passive congestion and some pigmentation of the cells.

Kidneys: There was a slight increase of the connective tissue, mainly around the glomeruli. The tissue contained more blood than usual; the tabules were slightly dilated; the epithelium granular and somewhat disintegrated at the inner margins, and the tabules contained granular matter probably derived from the cells.

The other organs were not examined with the microscope, but were apparently normal.

CASE II.

Spindle-celled endothelial sarcoma of the dura mater and soft carcinoma of the stomach.

J. D.; aged 59; white; single; shoemaker; late soldier; nativity, New York; mental disease, chronic mania; duration, twelve years.

No history of the patient previous to his admission to the hospital could be obtained. It was improbable that occupation or habits of life could have had any influence on the development of the tumors, though the condition of some of the organs may have been due to the abuse of stimulants. The dural tumor was probably of long standing; the carcinoma was of uncertain duration. The tumor of the dura gave rise to no characteristic symptoms, and the presence of the cancer was only indicated by some gastric pain and occasional vomiting after eating. It is almost certain that the vomiting was due to the gastric tumor rather than that of the dura, as the latter was of small size and all other symptoms of intracranial growth were absent. The mental disease beginning with maniacal excitement gradually gave way to terminal dementia of a moderate degree, and for some time previous to his death the patient was employed at light work about the kitchen. He gradually failed, and died from exhaustion and inanition due to the condition of the stomach.

Autopsy eighteen hours after death.—Body small, greatly emaciated, rigor mortis disappearing. Cranium: Antero-

posterior diameter of skull, 7 3/8 inches; transverse, 5 7/8 inches. Shape, asymetrical, the left side being the larger; sutures partially obliterated; bone of normal thickness. The outer surface of the skull bone was roughened and irregular in patches and showed a number of irregular depressions to which the pericranium adhered. In the occipital region some of these depressed areas yet remained soft and could be penetrated with the knife. The dura mater was adherent to the bone, but perhaps not abnormally so for a man of his age.

On the inner surface of the dura over the anterior part of the right third frontal convolution was a small globular tumor mass about three-fourths of an inch in diameter, firmly adherent to the dura mater and also attached to the pia, so that it could not be removed without tearing the latter. The tumor had made a slight depression in the convolution, but there was no loss of substance. The other portions of the dura seemed a little thickened, and a small nodule similar to the tumor described above was found on the inner surface over the left occipital region. This nodule had caused no depression in the brain. Section showed the tumor to be fibrous in structure, grayish-red color, firmly united with the dura and pia, but evidently derived from the former. The tissue was moderately firm, and slight grittiness was noticed on section.

Brain: Weight of each hemisphere, 21 ounces (595.35 grams); cerebellum, pons and medulla, 5 3/4 ounces (163 grams). The pia mater showed a moderate degree of vascular engorgement and some œdema, but no opacity or other alteration except as mentioned above. Arteries at the base not diseased. The brain tissue was very soft and œdematous and section showed enlargement of the perivascular spaces everywhere. The ventricles were moderately enlarged; ependyma smooth. Cerebellum, pons and medulla were œdematous and soft; a small congested area was found in the right side of the pons, exposed by middle transverse section.

Thorax: Limited chronic pleuritic adhesions on both sides, and a small quantity of fluid in each plural cavity.

Lungs. Weight of each, 20½ ounces (581 grams). Posterior portions of both lungs showed œdema and some hypostatic exudate in patches. Over the lower lobe of the left was a thin deposit of lymph.

Heart: Weight, 6¾ ounces (191 grams). The superficial arteries were very tortuous and calcified; opaque patch over wall of right ventricle; valves of right side normal; aortic valves normal; mitral valve a little thickened at its edges. Heart muscle brownish and superficial adipose tissue atrophied and œdematous. Aorta atheromatous throughout.

Abdomen: The abdominal cavity contained 112 ounces of straw-colored fluid. The appendix veriformis was turned upward and backward and was adherent to the peritoneum.

Spleen: Weight, 7¾ ounces (219 grams); capsule wrinkled and cartilaginoid in patches; pulp, slate-colored, rather pale, and fibrous. Small supernumerary spleen near the hilus.

Kidneys: Weight of left, 4½ ounces (127.5 grams); right, 4 ounces (113.4 grams). The organs were somwhat indurated; capsules adherent; surfaces slightly granular; cortex rather thin; apices of pyramids whitened by urate deposits. Urinary bladder normal.

Liver: Weight, 47½ ounces (1346.62 grams). The surface was slightly granular; edges somewhat rounded; upper surface of right lobe covered by a thin layer of apparently organized lymph, but it was not adherent to the diaphragm. The capsule showed some radiating scars over the superior surface; there was some general thickening of the capsule in the region of the gall-bladder, and a large depressed scar was found in the under surface of the right lobe. The tissue was tough and leathery, and the cut surface was almost homogeneous in appearance, without any trace of lobulation, or bands of connective tissue, such as are usually seen in common cirrhosis of the liver.* The gall-bladder was normal.

Stomach: At the pyloric end of the stomach was a large fungoid growth, which bordered upon the pyloric

*The condition of the bone of the skull and the peculiar variety of cirrhosis of the liver suggested syphilis, but as there was no proof of the existence of specific disease it was not mentioned in the history of the case.

orifice, but did not obstruct it to an appreciable degree. The growth was nearly two inches across in its greatest diameter and about three-fourths of an inch in average thickness. The surface was ulcerated and hemorrhagic; tissue was soft and juicy on section. The general surface of the stomach showed a granular condition and some opacity of the mucous membrane.

Intestines: No lesions were found in the intestines; mesenteric glands slightly enlarged but not cancerous.

Other abdominal organs were normal. No trace of secondary tumor deposits was found.

MICROSCOPICAL EXAMINATION.

Dural tumor: On superficial examination the tumor much resembled a hard fibroma, but on careful study it was found that the fibrous-looking tissue could be resolved into spindle cells with oval and elongated nuclei arranged in wavy bands, whorls, and concentrically arranged cell spherules, such as are commonly found in tumors of this class. The cell nuclei were very hard to stain and the cell bodies could not be distinguished when in masses. There was undoubtedly a considerable development of actual fibrous tissue and some hyaline change, which gave the tissue the peculiar appearance of a dense fibroma. The closely packed cell masses of various sizes were very numerous in some parts of the sections. In many of these the cellular structure could hardly be determined, owing to fibrous and hyaline change, and in some the degeneration had reached the stage of formation of the concentrically striated hyaline and calcareous spherules. Besides these spherules, large irregular areas of the same degenerative product were found in the large tissue masses where the cell structure was unusually dense. Blood vessels were not numerous, and those in the sarcomatous tissue had imperfect walls, though some fully developed vessels were found in masses of connective tissue, apparently derived from the dura. Hyaline change in the vessels was not marked.

The histogenesis of such tumors is certainly very obscure, but they are generally supposed to be derived from

the endothelium of the brain membranes, and are therefore called endotheliomata by many pathologists. On account of the shape of the predominating type of cells, which are spindle-shaped and not endothelioid, I have named this and other like tumors, spindle-celled endothelial sarcoma. The presence of the hyaline and calcified spherules being only accidental, should not warrant the use of such terms as psammoma, acervuloma, etc., especially as the identity of these bodies with "brain sand" is not established.

Cancer of stomach: The cancer of the stomach was of the soft variety, and probably originated in the fundus cells of the pyloric glands. The cells were rather small, with prominent nuclei, and, where not influenced by mutual pressure, round. The growth was mainly in the mucosa, and no trace of gland-like tissue remained, except a tendency of some of the peripheral cells to arrange themselves in a single layer along the walls of the aveoli and to assume columnar shape by mutual pressure. The growth had penetrated very little into the muscular coats of the organ, but a few cancer cell-nests were found in the connective tissue trabeculæ separating the muscular bundles of the circular layer. These cancerous masses were always surrounded by dense, small cell infiltration. The growth had not invaded any other organ or tissue.

Brain: The brain tissue was unfit for the more minute study of structure, on account of decomposition at the time of the autopsy. In ordinary sections the cells showed granular pigmentary degeneration; the pericellular spaces were large; the blood vessels had large perivascular spaces, but showed no disease of their walls. The cells of the spinal cord were granular and pigmented.

The lungs showed some exudation in the alveoli of the dependent portions. The kidneys showed a moderate increase of connective tissue in the vicinity of the glomeruli and between the tubules. The cells of the convoluted tubules were crumbled, and granular matter filled the lumen of the tubules.

The spleen showed enlargement of the venous sinuses and swelling and proliferation of the endothelium. The

connective tissue was increased; the capsule much thickened, especially in the cartilaginoid patches.

Liver: The microscopical appearances of the liver were very unusual. There was a moderate increase of the connective tissue between the lobules and in the portal canals. This tissue was richly nucleated in patches, and at the borders of these areas the tissue extended for some distance between the cell columns and the individual cells. There was no unusual proliferation of the bile ducts in the new connective tissue. In some places patches of new connective tissue were found among the cells, which were widely separated, misshapen and atrophied. Occasionally isolated groups of leucocytes were found among the cells, without any relation to the connective-tissue areas. They were supposed to be centers of the new growth.

In general, the liver cells were atrophied and the cell columns were widely separated by dilated capillaries. In some places this dilation was excessive and had almost reached the angiomatous stage, the cells having completely disappeared. The diagnosis of the condition of the liver was difficult, but taken in connection with the naked-eye appearances, specific cirrhosis would certainly be suggested.

The mesenteric glands seemed to be merely hyperplastic, as no cancerous deposits were found in them. Other abdominal organs were not examined with the microscope.

CASE III.

Spindle-celled endothelial sarcoma of the dura mater, penetrating the brain.

J. E.; aged 68; colored; widower: laborer; late soldier; mental disease, senile dementia; duration, three and one-half years.

The patient was admitted to the Western Branch, National Home for Disabled Volunteer Soldiers, October 2, 1893, with left hemiphlegia, convulsions, and was almost helpless. He was admitted to the insane ward April 27, 1897, with a history of advanced dementia, complete left hemiplegia and general prostration.

On May 4, 1897, he was admitted to the Government Hospital for the Insane with the above mental and physical symptoms somewhat advanced. May 30, 1897, he died suddenly, apparently from an apoplectiform seizure. From the recorded symptoms the tumor had apparently existed over three and one-half years.

Autopsy seventeen hours after death.—Body fairly well nourished; rigor mortis present; signs of commencing decomposition over lower part of abdomen.

Cranium: Antero-posterior diameter of skull, 7½ inches; transverse diameter, 5½ inches. The skull was rather thick and dense; shape asymmetrical, the occipital protuberance being situated to the left of the median line. Sutures visible externally, but indistinct in inner table. On the right side in the parietal region a marked elevation existed on the inner surface. There were no signs of external injury, and the elevation of the inner surface was probably related to the dural growth afterward described. Section of the bone through this protuberance showed nothing abnormal but unusual vascularity of the tissue; both tables and the diploe were intact and the thickening seemed to be mainly of the cancellous tissue.

Brain: Weight of right hemisphere with the tumor, 19¼ ounces (545.73 grams); left hemisphere, 18 ounces (510.3 grams); cerebellum, pons and medulla, 5½ ounces, (155.92 grams). Before opening the dura mater a depression was observed in its outer surface in the parietal region corresponding with the elevation of the inner surface of the skull, and adhesions to the bone were firmer here than elsewhere. On lifting the dura from the brain a large tumor was found beneath it embedded in the brain, but apparently raised above its general surface by the dropping away of the soft and œdematous cerebral substance. The tumor was adherent to the dura, so that the membrane was left attached to it. The growth was 3½ inches broad in its antero-posterior diameter; 3¼ inches in its verticle diameter, and was exactly 1⅜ inches in thickness. The growth occupied almost the whole of the parietal lobe, had crowded forward the central convolutions and the fissure of

Rolando, and the ascending parietal convolution was encroached upon and nearly destroyed by the pressure of the tumor. It extended vertically from the upper border of the posterior end of the fissure of Sylvius to the median edge of the hemisphere, and antero-posteriorly from near the fissure of Rolando to the anterior border of the occipital lobe. A section was made through the center of the growth, and it was then found that the tumor had penetrated the brain as far as the ependyma of the ventricles and nearly to the median surface of the hemisphere. On the median surface the tumor had not reached the cortex, though probably pressure had destroyed brain function over the advancing growth. The quadrate lobe was greatly damaged and the paracentral lobule was practically destroyed.

The consistence of the tumor was quite firm, but the brain tissue surrounding in was soft and pulpy, so that the brain had to be handled with extreme care to avoid enucleation of the tumor while making the necessary sections. The growth had firm adhesions to the dura mater and it had apparently carried with it the pia mater as it penetrated the brain, and traces of membrane and even cortex could be distinguished around the boundaries.

The tumor had a reddish-gray color; the surface looked a little granular but no gritty particles could be seen or distinguished by cutting. Bands of connective tissue could be distinguished radiating from the origin of the growth and intersecting it in every direction.

The pia mater of the left hemisphere was cloudy over the convexity, and the convolutions showed the effects of pressure. There was some atrophy of the convolutions and œdema of the pia, but not as much as usual in cases of senile insanity due to other causes. The arteries at the base showed no other signs of disease. There were no gross lesions in cerebellum, pons and medulla. Cord showed no evidences of disease.

Thorax: Pleuritic adhesion on both sides. The lungs were œdematous and full of blood posteriorly. Weight of the right 22 ounces (623.7 grams); of the left 20 ounces

(567 grams). Some muco-purulent secretion poured from the bronchi on section.

Heart: Weight, 11½ ounces (326 grams). A thin band of connective tissue stretched across the entrance of the pulmonary artery, apparently a congenital malformation. The pulmonary valves were normal; the tricuspid valve was a little thickened at its edges. The aortic valves were slightly thickened and had some small chronic vegetations at line of contact; mitral valve was slightly thickened at its edges. Aorta showed an early stage of atheroma; coronary vessels not diseased.

Abdomen: The spleen weighed 3¾ ounces (106.3 grams). Pulp firm; rather pale; capsule wrinkled.

Kidneys: Weight of right, 4¼ ounces (120.48 grams); left, 4 ounces (113.4 grams). The capsules were not adherent; surfaces showed a few small cysts; in other respects the organs seemed normal. Urinary bladder was normal.

Liver: Weight, 37¼ ounces (1056 grams). Left lobe of liver very small; tissue seemed normal; gall-bladder contained two fluid ounces of bile.

The other abdominal organs seemed normal.

MICROSCOPICAL EXAMINATION.

Tumor of brain: The growth consisted mainly of delicate spindle cells with prominent oval nuclei and clear cell protoplasm. The cells were closely applied to each other in the dense cell masses, so that the contours of the cells were hard to distinguish, but were easily seen in the looser portions of the growth. The cells were arranged in wavy bands, running in every direction, and in concentrically grouped cell masses, though this was not a prominent feature in the growth. No hyaline cell groups were found in the sections examined, though they are probably formed in some part of the growth, as they are very common in growths of this class. Large bands of connective tissue intersected the tumor tissue in every direction. In some places the tissue was loose and fibrous and blended by various stages of tissue development into the spindle-cell

tissue; in other regions the tissue was dense, almost devoid of nuclei and apparently hyaline. It seemed evident to the writer that this fibrous tissue was a development from the spindle-celled structure and as essentially a part of the tumor as the cell itself. The connective-tissue bands contained many large blood vessels, often with thick and hyaline walls, and many blood channels without definite walls other than a layer of endothelium separating the channel from the surrounding tissue. In some places these channels were very numerous, giving almost the appearance of angioma. Some of the vessels were completely obliterated by hyaline changes in all parts of the growth. In the cellular portions of the tissue blood vessels were not so numerous nor so large. Some of these were thick-walled and hyaline, some were mere channels lined with flattened cells, and some were surrounded by many layers of spindle cells.

Brain: The brain cells were in an advanced stage of degeneration; in some cases clumps of brownish-yellow granules represented all that was left of the degenerated cells. The perivascular and pericellular spaces were very large; some of the blood vessels were curved, and hæmatoidin granules were found along their walls. The nerve cells of medulla, cord and cerebellum were pigmented and granular.

The lungs were not examined with the microscope. The liver was normal except slight engorgement of the capillaries. The spleen showed the effects of chronic congestion in the enlargement and distinctness of the venous sinuses.

The kidneys were moderately full of blood; there was some crumbling of the inner portions of the cells of the convoluted tubules, and a few small cysts with colloid contents were found.

CASE IV.

Small Round-celled Sarcoma of the Brain.

C. E. M.; aged 53; white; married; messenger in War Department, United States; nativity, Maryland. Men-

tal disease, chronic dementia from tumor of the brain; duration unknown. The early symptoms in this case were depression, loss of memory, inattention to duties, and delusions of apprehension. He was admitted to the Government Hospital for the Insane July 13, 1897, with the above history, his mental failure advanced. His symptoms gradually became worse; he became bedridden, very weak, emaciated, and had numerous bed sores. He suffered from persistent headache, had attacks of vertigo, and occasional vomiting. His speech was incoherent; the pupils were dilated; there was ptosis of both eyelids; he became totally blind and partially deaf. The temperature was persistently above the normal; he had constipation alternating with diarrhea; the urine was at times retained; finally the discharges became involuntary. December 24, 1897, he died from exhaustion. The duration of the disease could not be determined.

Autopsy seventeen hours after death.—Body emaciated; evidences of bed sores over sadrum and trochanters; rigor mortis present.

Cranium: Antero-posterior diameter of the skull, 7½ inches; transverse, 5¾ inches. Sutures normal; shape symmetrical; bone of usual thickness. Dura mater was not generally abnormally adherent, but in the anterior portions of the middle cerebral fossæ the bone was absorbed in little depressions, and into these the dura, pia and brain cortex had been forced by intracranial pressure as small hernias.

Brain: Weight, with the tumor, 48 ounces (1360.8 grams). The subdural space was somewhat drier than usual, and the dura mater was drawn tightly over the brain by intracranial tension. The arteries at the base were moderately full of blood but not diseased. The floor of the the third ventricle was bulged downward, and the optic commissure was greatly thinned by the pressure of the intraventricular fluid; the optic nerves were smaller than normal. The brain was flabby and soft; convolutions somewhat sunken and flattened at their summits by pressure against the dura mater and skull bone.

Dissection of the brain revealed a tumor growth, which

appeared to have originated in the region of the corpora quadrigemina, and thence extensively invaded the brain. It had extended along the superior cerebellar peduncles and formed masses in the cerebellum; outward into the cerebral hemispheres and then involved the basal region at the junction of the occipital and temporal lobes, and grew into the posterior horns of the ventricles as fungoid masses. Small fungoid masses had extended forward along the lateral walls of the third ventrical. The corpora quadrigemina, conarium, valve of Vieussens and upper part of the cerebellar peduncles were totally destroyed and indistinguishable. The complete obstruction of the aqueduct of Sylvius was no doubt the cause of the great distention and enlargement of the ventricles.

The tumor tissue was extremely soft and easily torn, and this, with the inflammatory adhesions, made the dissection very difficult. Section of the growth showed the tissue to be very vascular; reddish gray in color; somewhat degenerated in the central portions, and the knife came in contact with gritty particles in cutting through it.

When the tumor invaded the brain substance it was separated from the normal tissue by a definite boundary line, and when the growth penetrated pre-formed spaces, such as the posterior and inferior horns of the ventricles, the new growth seemed to conform to the shape of the space occupied.

In the vicinity of the tumor the brain substance was very soft and œdematous; tissue in general was pale; ventricles dilated; ependyma smooth; gray commissure was greatly stretched, but not torn. Nothing abnormal was noted in the medulla and spinal cord. Other organs were not examined.

MICROSCOPICAL EXAMINATION.

The tumor: The growth proved to be a small round-celled sarcoma, which probably originated in the membranes in the vicinity of the corpora quadrigemina. The great bulk of the tumor consisted of round cells, with relatively large nuclei and small protoplasmic cell-bodies. The inter-

cellular substance was scanty, appeared granular, but a few delicate fibers were found. Numerous sarcomatous blood vessels were found in the cellular tissue, in some places suggesting angio-sarcoma, and the grouping of the cells in the vicinity of the vessels, seen in some places, is also suggestive of some relation between the cell development and the vessels. Very little connective tissue was found in the main cell masses of the tumor, but in the vicinity of the pia mater some bands of fully developed fibrous tissue were found, which were supposed to be distorted remnants of the membranes, incorporated with the sarcomatous growth. Some large blood vessels were found in this tissue. In the degenerated areas of the tumor, where the gritty particles were detected by the knife, were numerous irregularly rounded, concentrically striated, and sometimes mulberry-shaped, highly refractile bodies, supposed to be what is commonly called "brain sand." They are supposed to be of different structure and origin from the somewhat similar spherules found in many of the spindle-celled sarcomata of the dura mater. The calcareous spherules were not found in the cell tissue of the growth except in the degenerated areas, where they were associated with remnants of connective tissue. Some granular calcareous infiltration was found in the small cerebral vessels at the boundaries of the invading tumor. Though the tumor undoubtedly extended locally by invasion and infiltration of adjacent tissues, the microscope showed remarkably defined limits to the growth when normal tissue was invaded. The boundary line of the growth was often distinct, even when the pia mater was the tissue in advance of the growth. In this respect this tumor presented a marked contrast with glioma and glio-sarcomata, as in these no definite boundaries can be made out.

Brain: The membranes generally were normal. The blood vessels were somewhat tortuous and had some pigment granules in their perivascular spaces, but were not otherwise diseased. The brain cells showed various degrees of granular pigmentary degeneration. The cells of cerebellum and spinal cord were pigmented, and some in the latter were quite granular.

REMARKS.

Owing to extensive additions to the laboratory buildings and other causes of delay, the work intended for the special report for this year could not be completed. The pathologist, therefore, presents the study of four cases of intracranial tumors as a continuation of the work on this subject in the pathological supplements for the years 1892, 1894, 1895 and 1896. The cases of intracranial growth now studied number twenty-three true tumors and one aneurism.* Of the true tumors no less than thirteen were of the class which may be called spindle-celled endothelial sarcomata, spindle cells being the predominating type of cells, and the endothelium of the dura and soft membranes the probable origin of the growths. While the present study adds very little to what has already been stated in regard to this very interesting and common class of intracranial growths, it has given additional proof to some of the statements made in former reports regarding their structure and origin.

These tumors can not be classed with any other division of morbid growths, consequently they must be placed with the sarcomata or in a class by themselves. They are cellular tumors of embryonic character, and are thus naturally placed with the sarcomata, though they differ in many important particulars from the ordinary sarcomas.

The histogenesis of these growths is obscure, though they are commonly supposed to develop from the endothelium of the dura mater and probably of the soft membranes. In deference to this opinion, which is shared by the writer, the term "endothelial" has been added to the descriptive title, based upon the predominant type of cells. In one dural tumor of this class the writer found unmistakable evidence of the origin of the tumor cells from the proliferated endothelium of the arachnoid villi within the parasinoidal spaces, sinuces and lymph channels of the dura mater. Processes of cells were traced from the endothelial covering

*In the remarks following the report of 1895 a small tumor of the dura mater reported in 1892 was omitted. It was a spindle-celled endothelial sarcomata. Case 278, 1892.

of the villi, where they were several layers thick, outward along the necks of the villi to the main tumor mass. It was also noted that though the cells were endothelial at their origin they soon became spindle-shaped, began to arrange themselves in concentric masses, and to form hyaline spherules. Some cell-spherules and hyaline bodies were actually found within the interspaces between the dura and the arachnoid villi. It is of course possible that the endothelial cells which line the invaginations of the dura pushed into these spaces by the villi, may proliferate and take part in the formation of the growth, but in this particular tumor the cell growth over the villi was out of all proportion to that of the dural walls. The fibrous connective tissue of such growths I have not been able to trace to its origin, but I am inclined to think it is a product of development of the cells and an essential part of the structure of the growths.

The structure of these growths has been given in the individual cases, and a general description would answer for most tumors of this class; there are, however, minor differences which are of extreme interest to the pathological histologist, some of which the writer has endeavored to explain. The main bulk of these tumors is composed of spindle cells, and not profile views of flat endothelial cells, as many histiologists claim. Of this I have convinced myself by cutting sections in every possible direction and by isolating the cells. They are not connective tissue tumors; though when the intercellular substance is abundant and fibrillated they much resemble richly nucleated fibrous tissue. They may with some propriety be called "endotheliomata" if we are convinced of their origin; and in fact some of these growths show groups of large round cells, arranged in alveoli, which without doubt are endothelial in origin.

The concentrically arranged cell-spherules and the hyaline and calcified spherical bodies derived from them have received special attention. So far as known by the writer no explanation has been given of the peculiar tendency of the cells of these growths to arrange them-

selves in this manner. They have no normal prototype, and the peculiarity seems to be confined to the intracranial tumors of this class. The concentrically striated, sometimes faintly nucleated, hyaline spherules are unquestionably degenerated products of these cell groups, the degeneration beginning in the centers probably from malnutrition of the central cells. This degeneration is probably analogous to the horny transformation of the central cells in the closely-packed epithelial cell-nests in surface cancers.

It is the opinion of the writer that these hyaline and sometimes calcified spherules are to be clearly distinguished from the somewhat similar calcified spherules which are frequently found in the pineal gland, choroid plexuses and in degenerative products, and are known as "brain sand," and that to call such tumors as those above described, psammomata, acervulomata, etc., is incorrect.

Hyaline degeneration in these tumors is not confined to the spherical cell-groups; in many growths the vessel walls become hyaline, and masses of the same degenerative product are found in the dense cell masses of all shapes. Frequently the hyaline substance becomes calcified. The source of the hyaline material and the cause of its formation are not definitely settled.

To the surgeon this class of tumors is of especial interest; they grow slowly, when small and accessible they are easily removed, and when removed there is little danger of recurrence, as such growths penetrate but do not infiltrate the brain substance. They are of peculiar interest to the physiologist and student of brain function, as the injury they inflict upon the brain is almost as sharply circumscribed as the lesions made by the experimental pathologist.

In marked contrast with these tumors are the small round-celled sarcomata. The boundaries of such growths are difficult to determine, and successful removal is impossible.

Two of the cases studied presented the unusual occurrence of tumor growths of different character in the same individual. In one case a semi-malignant spindle-celled endothelial sarcoma was found in the cerebellum and benign multiple soft fibromata of the skin. In another case a spindle-celled endothelial sarcoma was found on the dura mater and soft cancer was present in the stomach.*

*In a case reported in 1894, round-celled sarcoma of the testicle, adenoid carcinoma of the stomach and endothelial sarcoma of the dura mater were found in the same individual.

MALTHUSIANISM AND DEGENERACY.*

By HARRIET C. B. ALEXANDER, A. B., M. D., Chicago.

Fellow of the Chicago Academy of Medicine.

THE Malthusian doctrine is essentially that old principle of which Schiller sang:

"What grave professors preach,
The crowd may be excused from knowing,
Meanwhile, old Nature looks to each,
Tinkers the chain, and mends the breach,
And keeps the clock-work going.
Some day, Philosophy, no doubt,
A better World will bring about;
Till then the old a little longer,
Must blunder on through Love and Hunger."

Hunger (of which love was then a part) formed the primitive appetite, the moving impulse of the amoeba, later to give birth to that political economy whereby, after their courtship of the queen, male drones are killed off to save their sustenance to the bee community. This necessity of adjusting population to food supply expressed itself in a primitive human tendency, a direct evolution from the seemingly blackest fact in natural history; that instinct whereby the wounded, dying and vicious are driven from the herd by the social animals. Wolves and wild dogs devour a badly wounded comrade. Deer butt the wounded from the herd into the jaws of pursuers. Elephants and crows drive the "rogues" as well from their midst. From this resulted savage exposure of the aged and weakly, often at their own request, as well as the less brutal methods of

*Read Before the Philosophy and Science Department Chicago Woman's Club.

tribes as low in evolution as the Australian,* which, by a surgical operation, prevent 95 per cent of their males from becoming fathers, in some tribes immediately after birth; in others not until two children are born. In certain African tribes women are subjected to a similar operation to prevent motherhood before a certain age. This principle of protection of the state by sacrifice of the weakly ran through all phases of government evolution from the anarchic horde to the socialistic village community, thence to shaman rule (during peace) with elective war chieftains, to mixed religious and temporal rule (like that of the Mikado and Shogun), finally to the divine right of kings; or from the village community to socialistic, federal, centralized or individualistic republics or constitutional monarchies. Races as relatively high in evolution, as the Spartans, exposed the weakly and encouraged suicides in those mutilated by wounds. The Scandinavians preferred death in battle or suicide to death in bed. A fetichic belief (whose highest later evolution is the modern doctrine of degeneracy) was often the directing principle. Children with well-marked stigmata of degeneracy were exposed because branded† by nature as dangerous. The principle of regulating population for benefit of the state expressed in the political axioms of Lycurgus, Solon, Aristotle and Plato exerted an influence on Machiavelli, and he in his turn on the Jesuit Ortes, who, eight years before Malthus, gave forth, in obscure language, because of dread of the Inquisition, the basic principles of the epoch-making, "Essay on Population."

Plato's principles, modified by Celto-Teutonic usages and Christain ethics, appear in Sir Thomas More's Utopia, in Harrison's Elizabethan England, in Hobbes' Leviathan and in Sir William Petty's political writings.

The necessity for regulating population was summed up, so far as the seventeenth century is concerned, by the anatomist of melancholy, Burton, who remarks:‡

"So many several ways are we plagued and published for our father's defaults; in so much that as Fernelius

*Humboldt's Travels in Australia.
†Thistleton Dyer, Folklore of Shakespeare.
‡Anatomy of Melancholy, 1652.

truly saith: 'It is the greatest part of our felicity to be well born and it were happy for human kind if only such parents as are sound of body and mind should be suffered to marry.' An husbandman will sow none but the best and choicest seed upon his land; he will not rear a bull or a horse except he be right shapen in all parts, or permit him to cover a mare except he be well assured of his breed; we make choice of the best rams for our sheep, rear the neatest kine and keep the best dogs *quanto id diligentius in procreandis liberis observandum*. And how careful then should we be in begetting of our children. In former times some countries have been so chary in this belief, so stern, that if a child were crooked or deformed in body or mind, they made him away; so did the Indians of old by the relations of Curtius and many other well-governed commonwealths according to the discipline of those times. Heretofore in Scotland, saith Heatt Noethius, if any were visited with the falling sickness, madness, gout, leprosy, or any such dangerous diseases which was likely to be propagated from the father to the son, he was instantly gelded, a woman kept from all company of men and if by chance having some such disease, she was found to be with child, she with her brood were buried alive and this was done for the common good lest the whole nation should be injured or corrupted. A severe doom you will say, and not to be used among Christians, yet more to be looked into than it is. For now by our too much facility in this kind in giving way for all to marry that will, too much liberty and indulgence in tolerating all sorts, there is a vast confusion of hereditary diseases, no family secure, no man almost free from some grievous infirmary or other when no choice is had, but still the eldest must marry as so many stallions of the race; or if rich, be they fools or dizzards, lame or maimed, unable, intemperate, dissolute, exhausted through riot, they must be wise and able by inheritance. It comes to pass that our generation is corrupt, we have many weak persons both in body and mind, many feral diseases raging among us, crazed families; our fathers bad and we are like to be worse."

While the authorities summed up by Burton aimed at removing defects by Spartan method almost as injurious to the community through their deteriorating effects on altruism as the defects they were intended to cure, there is suggested for the first time by Burton a more logical, humane method of removing these defects. Burton while biased rather too much by belief in the omnipotence of statutes, did not underrate the value of logic addressed to the individual. His views were beneficially modified by the growing, though feeble, beliefs in the right of the individual which marked the period of the British commonwealth during which he wrote.

Thus modified, they found their most lucid individualistic exponent in one who, like the self-denying, humane Epichrus and the philanthropic pioneer criminologist Guillotin, has been singularly maligned by erroneous distortions of his doctrine. Of the multitudes who have denounced Malthus on Population and the Malthus Doctrine, Bettany* remarks, very few have read his book or know anything of the life and character of its author. Many who advocate what is termed neo-Malthusianism would appear either to be in the same case or to have conveniently forgotten what Malthus really thought. A work of deep philosophic thought, of wide and careful research, teaching a doctrine pure, self-denying, prudent and wise, the "Essay on Population" has been denounced as unholy, as atheistic, as subversive of social order.

In view of the "Essay's" evolutionary tone, such denunciation will not surprise those who have witnessed early vituperation of the Darwinian doctrine glide into pæans of praise. Charles Darwin has eulogistically acknowledged his debt to Malthus, but how greatly this debt, can be realized only from perusal of the "Essay on Population," wherein are decided evidences, not merely of the recognition of disproportion between food supply and human increase, with resultant struggle for existence, but of the value of natural selection in securing advance in evolution. Evil, according to Malthus, exists not to create despair, but ac-

*Life of Malthus.

tivity. Nature sends all sentient creatures through a long and painful process by which they gain new qualities and powers. This life is the mighty process of God for creating and forming the human mind out of the torpor and corruption of dead matter existing, to sublimate the dust of the earth into soul, to elicit an ethereal spark from the clod of clay. The first awakeners of the mind are the wants of the body, and by arranging that the earth shall produce food only in limited quantities as a result of labor, God has provided a continual spur to human progress. Population tends to increase faster than food that men may be roused to save themselves from suffering for lack of it. Life is, generally speaking, a blessing independently of a future state. The impressions and excitement of this world are the instruments with which the Supreme Being forms matter into mind. Malthus, like Emerson, saw that.

"The fiend that man harries
Is Love of the Best.
Yawns the Pit of the Dragon,
Lit by rays from the Blest.
The Lethe of Nature
Can't trance him again,
Whose *Soul* sees the perfect
His *eyes* seek in vain."

Effort to both mean self-help, that redemption of man from the moral and physical degradation of parasitism, that accumulation of checks which constitutes the essential line of ethical evolution. Development of a complex mental state tends to control a simple explosive prosperity in accordance with the law that evolution proceeds from the simple indefinite homogeneous to the complex definite heterogeneous, with a loss of explosive force. The forebrain, which increases in size with evolution, is a checking apparatus against the lower, more destructive natural impulses. The higher its development, the greater is the tendency to subordinate the particular to the general. Even in the lower animals a high state of social growths occur, as in the bee and ant communities. The same is the case in the development of man; in the infant a being entirely

wrapped up in its instincts of self-preservation, the primary ego is predominant and the child is an egotistic parasite. As evolution proceeds this standpoint is passed, conscience assumes its priority, the forebrain acts as a check on purely vegetative functions and the secondary ego takes precedence over the primary. This is the usual order of civilization in its advance.

That Malthus clearly contemplated this development is evident, not only from the passage quoted, but from other elucidatory remarks in his "Essay." These evolutionary principles, advanced by St. Augustin and Thomas Aquinas, were later obscured by the special creation dogmas of the Jesuit Saurez which long dominated Christendom. Despite brutal misrepresentation, Malthus' views were accepted by Pitt the younger, the great theologist Paley, Bishop Otter, Bishop Copleston, Hallam, James Mill, Ricardo, Macaulay, Brougham, Harriet Martineau, the *Edinburgh* and *Quarterly Reviews*. Bishop Otter undoubtedly expressed the sense of most coeval thinkers in Malthus' epitaph in Bath Abbey:

"One of the best men and truest philosophers of any age or country. Raised by native dignity of mind above the misrepresentation of the ignorant and the neglect of the great, he lived a serene and happy life, devoted to the pursuit and communication of truth supported by a calm but firm conviction of the usefulness of his labors, content with the approbation of the wise and good. His writing will be a lasting monument of the extent and correctness of his understanding. The spotless integrity of his principles, the equity and candor of his nature, his sweetness of temper, urbanity of manners and tenderness of heart, his benevolence and his piety are still dearer recollections of his family and friends."

To the hysteric philanthropist who believes that evil is best dealt with in ostrich-like fashion by shutting one's eyes to its real nature, then evolving it and a spasmodic remedy from a distracted inner consciousness, Malthus was repellant. To the great coeval woman thinker, Harriet Martineau, he was a motive for her tales and one of the noblest of mankind. "A more simple-minded, virtuous

man," she writes, "full of domestic affections than Mr. Malthus could not be found in all England. Though the best abused man of the age, I saw in him one of the serenest and most cheerful men that society can produce. I asked Mr. Malthus one day whether he had suffered in spirit from the abuse lavished on him. 'Only a little at first,' he answered. I wonder whether it ever kept you awake a minute. 'Never after the first fortnight,' was his reply."

To Malthus there was good and evil in the universe, but what that good and what that evil could only be determined by a study of their relations, since each shaded into the other. Study of these relations would, to minds filled with the fetichic dualism of good and evil, be as repugnant as to Carlyle who, in the shallow optimism of the Gospel of Force, denounces political economy as the "dismal science," forgetting his own truth that "nature, as green as she looks, rests every where on dread foundations, and Pan, to whose music the nymphs dance, has a cry in him that can drive all men distracted." To Carlyle's greater contemporaries, Goethe and Emerson, spasmodic remedies had the abhorrent aspect voiced in Faust:

> "Nature, the living current of her powers,
> Was never bound to Day and Night and Hours,
> She makes each form by rules that never fail,
> And it is not Force *even* on a mighty scale."

To them political economy was a science of human weal.

Malthus was singularly fortunate in his ancestry and environment, including the period at which he was born. It was an age which began to recognize that the proper study of mankind was man in the sense of the Golden Rule. It saw prison reform under Howard, Guillotin and Elizabeth Fry; lunacy reform under Giarrurgi and Pinel; deaf mute care under Abbe Sicard, the onslaught on the slave trade Jefferson tried to insert into the Declaration of Independence and did insert into the Northwest Territory law, the bourgeoning of chemistry and biology under Priestley Lavoisiér and Buffon, the evolution doctrine under Lamarck, Erasmus, Darwin, Goethe, von Buch and Geoffrey

St. Hilaire, the reblossoming of individualism against tyranny of the state, the giant growth of electricity under Franklin, Volta, Galvini and Faraday, of steam under Watt, Fulton and Stephenson and of literature under a host of giants. It saw Mediævel fetichism loom under the paranoiac George III, the epileptic Napoleon, the morally degenerate Bourbons and Hapsburgs as a breakwater against human progress, but

> "While the tired wave vainly breaking,
> Seemed here no painful inch to gain,
> Far back through creeks and inlets making,
> Came silent flooding in the main."

While Malthus passed into youth great industrial discoveries had been made. Roebuck had begun to separate iron from scoriæ by coal; Brinsley had begun his system of canals; Wedgewood had begun to make good china, cheap; Hargreaves had invented the sewing machine, Arkwright the spinning jenny, Crampton the cotton loom and Cartwright the power loom.

Up to the reactionary time to which reference has been made the outlook for the close of the century seemed propitious. The United States with their enormous gains in fecundity added to popular belief in the happiness resultant on growth of population. John Adams in 1769 was sure the population of the United States would exceed that of all Europe in another century.

In less than three decades things changed. Life in England as beheld by Malthus during his early manhood was, as Notti remarks, saddening. Successive seasons of scarcity swept over English agriculture. The wealthier classes, under the plea of setting an example of economy, without reducing rents, cut down their retinue of employes and expenditures while ostentatiously doling out charity to one-sixth of the population. Village industries were discouraged. The unemployed were given parish aid and the wages paid laborers by parsimonious squires were eked out by public funds. The miserable roads and diffculty of intercommunication doubled the effects of scarcity. An abundant harvest rotted ere it could supply a deficiency a

few miles away. Tariffs on food starved the town population while bounties on wood and herds encouraged the farmer to cut down his laboring force, whose wages were already reduced because of poorhouse aid which thus encouraged pauperism and parsimony. Hundreds of the English squirearchy saw these things without comprehending them or sympathizing with the sufferers otherwise than by cant about the wills of God or the effects of drunkenness.

The parentage of Malthus implied a deep logical sympathy with humanity. Daniel Malthus, his father, was one of those rare types of English Squire actively interested in human progress. Although an Oxford graduate, he was an admirer of Godwin of Condorcet, and most significantly, of Rousseau, of whom he was an executor. Rousseau was a direct evolution from Locke, whose original contract ideas, derived from Hobbes' modification of the Puritan, Anabaptist and Lollard school of politics, appear in the Declaration of Independence.

Thomas Robert Malthus was born February, 1766. Up to the age of ten his father trained him. He was then taught Latin and good behavior by the parish rector, the Rev. Richard Graves. He saw that his pupil, though most peaceably inclined, loved fighting for its own sake, having desperate fights with the school boy to whom he was most attached. At fourteen Malthus was placed with the Rev. Gilbert Wakefield, who, dissenting from the thirty-nine articles, had become classical master of the famous Warrington Academy, where Liberal Churchmen and Dissenters were educated together. Here young Malthus learned to exercise his own powers and to develop his faculties. Wakefield induced his pupil to enter the Jesus College, Cambridge, in 1785, who there took up a wide range of study in addition to the classical course. About this time his father saw in him the most unexpectedly stable character, the sweetest manners, the most sensible and kindest conduct. Uniformly making everybody easy and amused.

In 1797 Malthus, elected Fellow of Jesus College, became an M. A. He devoted the intervening year to a study of political economy and politics. In 1796 he wrote a pamphlet

(The Crisis) against Pitt's reactionary government, which, by his father's advice, he did not publish. As it advocated the old republican spirit which triumphed in 1688, and as Pitt was maintaining the crazy absolutism of George III, his father's advice was excellent. Pitt would undoubtedly have sent Malthus, as he did thinkers of like views, to herd, as Macaulay says, with the felons at Botany Bay. Malthus, although an English Churchman, was in favor of abolition of the Test that excluded Dissenters and Roman Catholics from office. He warmly approved Pitt's Poor-law Reform Bill. Soon after he took orders and held a curacy near Albury.

In "The Crisis" occurs a remark which shows that he was then pondering on the subject of population. He observes: "I cannot agree with Archdeacon Paley, who says that quantity of happiness in a country is best measured by the number of people. Increasing population is the most certain possible sign of happiness and prosperity of a state, but the actual population may be only a sign of the happiness that is past."

In 1797, while staying with his father at Albury, both keenly discussed Godwin's ideas of human quality and perfectibility and the influence of government on misery. The younger Malthus, for argument sake, attacking Godwin's position found that this was more vulnerable than he had supposed. Shortly afterward he published the first edition of the "Essay on Population" in 1798. This anonymous volume in large type covered but a part of later editions. Although more rhetorical and appealing less to facts than they, it grasped the principle that population tends continually to outstrip the means of subsistence and is prevented from so doing only by checks involving misery and vice, which, however, lead often to human advance through the introduction of self-restraint by man.

Numerous "replies" and "refutations" appeared. The most noted was that of Sadler, less because of its intrinsic value than on account of its castigation by Macaulay, of the frantic attempts of the *Frazier Magazine* clique, headed by Maclise, the artist, to inflate Sadler to the size of Malthus

and because of the "Siamese Twins" satire of Lytton, which Malthus' fame now alone keeps alive:

> "So far so good, the Siam Nation
> Is somewhat thin of population,
> And (there, as here, two sects are clamorous,
> The Economic and the Amorous).
> It must have charmed the Siam Sadlers
> To see this doubling on the Malthus Twaddlers."

Each successive edition of the "Essay," enriched by personal researches, grew less rhetorical and more judicial. In 1800 Malthus published (anonymously) a tract "On High Price of Provisions." After the peace of Amiens he visited France and Switzerland to accumulate further facts.

In June, 1803, he wrote the preface of the second edition, softening some unduly pessimistic features of the first. Moral restraint became more prominent. One of its expressions, civilization, was shown to have sensibly alleviated the pressure of population in modern times. Every man had in himself the power of avoiding the miseries due to over population by being continent before marriage and not marrying till he could support a family.

Because Malthus described their effects, he was accused of defending smallpox, slavery and child murder, and was denounced as an atheist, immoral, revolutionary, hard-hearted and cruel.

In 1805 he was appointed Professor of History and Political Economy at Hailebury College, where the cadets of the East India Company were trained. He married (March 18, 1804) Miss Harriet Eckersall.

In 1807 appeared the third edition of his "Essays" in two volumes. A fourth appeared in 1808, when he also published a letter to Samuel Whitebread on his bill for amending the Poor Law.

At Hailebury Malthus found a spot where he could pursue his life-work, disturbed only by the turbulence of the students. This was notorious. Sydney Smith in 1810 wrote "the season for lapidating the professor is now at hand. Keep Mackintosh (a new professor) quiet at Holland House till all is over." Malthus in 1812 wrote "Observa-

tions on the 'Corn Law,' Grounds of an Opinion on the Policy of Restraining Importation," and the "Nature and Progress of Rent." In 1817, after visiting Kerry and Westmeath, he published the fifth edition of the "Essays." In 1819 he became Fellow of the Royal Society. In 1820 he published "Political Economy." In 1822 joined with Mill and Ricardo in establishing Political Economy Club, and wrote "Measures of Value." The article on population then written for the Encyclopædia Brittanica Supplement did not appear till 1830. In 1825, broken down by the death of a daughter to whom he was much attached, he went with his wife to the continent. In 1826 he published the sixth edition of his "Essays." In 1827 his "Definitions of Political Economy" appeared. His later years were largely occupied with revising his "Political Economy," of which a second edition appeared in 1836, with a memoir by Bishop Otter. He helped to found the Statistical Society just ere his death from heart disease in 1834.

The "Essay" was the outcome of a study of vice and misery existing in England in the eighteenth century and the coeval remedies therefor. From this standpoint it first merits analysis. The English at this period, as today, were inclined to regard increase in population as an increase in national happiness. To maintain this was for the interest of the agriculturist, since labor by an entire family brought children and women strongly into competition with men. It was for the interest of the mine-owner, because children, women and men labored in mines at any price the owner chose to pay. Only two decades ere Malthus' birth had serfdom among miners been abolished by statute. It was for the interest of clothing manufacturers, since "sweating" was as well understood in England in the eighteenth century as it is today. The truth of overpopulation dangers, fought by these vested interests, was dawning on thinkers. The remedies proposed varied. Pauperization by charity, of almshouses of the type satirized by Dickens in "Hard Times," by hospitals, by dispensaries, by parish relief, by bounties on large families of children, were methods proposed by the plutocratic classes

really for the maintenance of *statu quo*, theoretically for the relief of misery. Another class of plutocrats, charging all vice and misery to drunkenness, proposed to remedy this not by individual reformation but by repressive law, making it a felony and pauperizing families for the benefit of the King. The same class advocated the tariff on grain and the bounty on cattle already described.

Emigration was proposed by well-meaning persons who fully recognized the evil and really wanted to remedy it. Godwin's school, seeing the evil effect of the press gang system, of judicial punishment of laborers seeking increased wages, for contempt of court, of the pauperizing influence of the felony laws whereby all goods were forfeited by the felon to King George III (whose avarice so encouraged these laws that more offences were made felonies during his reign than at any time before or since), of the seizure of village commons by enclosure acts at the instance of neighboring land owners, proposed to remedy these evils by immediately limiting government to police powers, strictly defined. Another set of thinkers proposed socialistic and communistic remedies. Condorcet, later imitated by Robespierre, by the French Republic of 1848, by Bismarck and his pupil Miquel of Prussia, proposed a system of pensions to disabled and aged workmen, with private almshouses similar to those already existant in England. Malthus, discerning at once the worse than uselessness of governmental interference and, like Emerson, the error of charging all crime, misery and poverty to drunkenness, perceived biology gave more logical explanations. Buffon laid it down as an accepted principle that the general course of all living nature is constant and the same. Its regular movement turns on two fundamental points: the unlimited fecundity of all specie, and (second) the factors which reduce this fecundity to a determinate amount. The most perfect, most delicate, most clumsy, least active species, hence, have disappeared or are disappearing. Malthus, applying this principle to man, investigated the causes that had hitherto impeded human progress toward happiness with a view of determining how far such

causes could be removed. The great cause was the relation of human increase to food supply. With Benjamin Franklin he was of opinion that there is no bound to the prolificness of life but what is made by interference with the means of subsistence. The increase of man is, however, interrupted by his reason through the query whether he should bring beings into the world whom he cannot support. If man heed this natural query, restriction frequently produces vice. If he heed it not the race constantly tends to increase beyond the means of subsistence. As population can never actually increase beyond the lowest nourishment possible for life, a strong check on population from the difficulty of acquiring food must constantly be in operation. This difficulty must be severely felt in some of the various forms of misery or dread of misery by mankind. Under the most favorable circumstances population doubles in twelve years, while food supply at best doubles in but twenty-five. Population, therefore, tends to increase in geometrical ratio, but food in arithmetical ratio only. Malthus believed that he had discovered the great source of misery in the relation between overpopulation and deficient food supply. He proceeded to analyze the conditions which act as checks on overpopulation, with a view of determining how far these checks can be applied in an ethical manner for the relief of suffering. The great ultimate check on overpopulation is famine. Interdependent of this are checks like customs and diseases germinated by scarcity, and weakened systems thereon resultant. The other checks he finds to be divisible into two classes, those altogether under control of the individual preventive checks, and those not, positive checks. Preventive checks consist in moral restraint and vice. Moral restraint is restraint on marital indulgence and postponement of marriage from prudential motives, with conduct strictly chaste while unmarried. The preventive checks that come under the head of vice are promiscuity, unnatural passions, violations of the marriage bed and improper acts to avoid and conceal the consequences of either marital or irregular relationships. The positive checks are unwholesome trades, exhausting toil, extreme

poverty, bad nursing, excesses, epidemic and endemic diseases, war, as well as the great check already mentioned, famine. The preventive and positive checks act in inverse ratio. Malthus carefully analyzed these checks as found in the primitive communities, in ancient communities and the Europe of his day, as well as those from standing armies, religious celibacy, government regulation of marriage and emigration. He finds that while in all these communities all other factors play a part in determining the relations of population and food supply that there has been, on the whole, a steady increase in the influence of moral restraint which, though less prevalent in men, was more prevalent in his day than of old, and in Europe than elsewhere. Among women its influence was still greater. Discussing the various socialistic methods to reduce misery already described, he points out that in time all of them, by lessening the powers of self-help, would,like most socialistic remedies, prove ultimately plutocratic in result. He points out that Godwin's remedy must be a matter of evolution, and if immediately attempted would produce anarchy, resulting in greater governmental control than had originally existed. In the whole of these remedies by the power of the state he sees but an illustration of Johnson's apothegm:

> "How small of all that human hearts endure,
> That part which Kings or laws can cure."

Emigration, Malthus admits, is a check to population, and has more than once proved an enormous factor in elevating the race. He points out that the incursions of the Vikings and Gothic tribes were due largely to overpopulation. Emigration, however, cannot be a remedy to all classes and continuously; the poorest classes "cannot emigrate for lack of means or want of energy. Love of country and other factors will play a large part in decreasing emigration and preventing its application." The great defect in the various remedies adopted under the guise of charity at the close of the eighteenth century, according to Malthus, was that they increased the evil they were intended to relieve. The pauper class, supported at the expense of the community, inclusive of the working class upon whom

taxation ultimately fell, competed with this very working class and reduced its remuneration. On the other hand, the food consumed in almshouses, workhouses and outdoor relief decreased the food supply and increased its cost.

Malthus would abolish almsgiving and methods of relief which destroy self-respect by degrees, restricting their application meanwhile to special exigencies. The methods of parish relief encourages the poor to marry without prudential considerations as to support of offspring. Legal attempts to suppress this by regulating marriage are immoral and useless, since, like all legal regulation of marriage, they produce irregular but protracted relationships with at least equal progeny. Restriction of parish relief is hence at once efficacious and ethical in its stimulation of self-help. These methods of parish relief destroy thrift, self-respect and prudence among the poor by inoculating practically the theologic theory that it is the duty of the poor to increase and multiply without regard to the future well-being of their offspring.

Since all the checks on population are, Malthus remarks, resolvable into moral restraint, vice and misery, the former only is indicated. Of the value of moral restraint, Malthus was furnished with a striking example in the army of the British Commonwealth. This, drawn in the main from the working classes and subjected at once to severe military and moral discipline, was discharged without pensions by Charles II at a time when begging was honorable and when more than one-sixth of the population were recipients of public charity. As Macaulay remarks, fifty thousand men, accustomed to the profession of arms, were at once thrown on the world; and experience seemed to warrant the belief that this change would produce much misery and crime; that the discharged veterans would be seen begging in every street, or that they would be driven by hunger to pillage. But no such result followed. In a few months there remained not a trace indicating that the most formidable army in the world had just been absorbed into the mass of the community. The royalists themselves confessed that in every department of honest industry the discharged

warriors prospered beyond other men, that none were charged with theft or robbery, that none were heard to ask an alm, and that, if a baker, a mason or a wagoner attracted notice by his diligence and sobriety, he was, in all probability, one of Oliver's old soldiers.

England, financial and intellectual, bone and sinew, were drawn from the descendants of the army of the Commonwealth. Malthus believed, as Emerson later, that:

> "Fear, craft and avarice
> Cannot create a state.
> When the church is social worth,
> When the statehouse is the hearth,
> Then the perfect state is come."

That against the principle of moral restraint three objections may be urged, Malthus admits. First, that wages may be increased. Second, that population will diminish. Third, that vice will increase. The first objection Malthus deemed hypocritical and disregards. Diminution of population would be purely relative and food supply would soon overtake it if industry were well directed. Great Britain under a proper social system could treble its population, which still would be better fed, clothed and housed. In reply to the third objection he points out, as was demonstrated later by modern criminologists* that *misery* causes more vice and crime than sexual passion and conduces far more to sexual vice than does moral restraint. Abject poverty is most unfavorable to modesty and chastity. According to Malthus and Hogarth, Tennyson could ask with greater emphasis a century ago

> "Is it well that while we range with Science, glorying in the Time,
> City children soak and blacken Soul and Sense in city slime?
>
> There among the gloomy alleys Progress halts on palsied feet,
> Crime and hunger cast our maidens by the thousand on the street.
>
> There the master scrimps his haggard sempstress of her daily bread,
> There a single sordid attic holds the living and the dead.
>
> There the smoldering fire of fever creeps across the rotted floor,
> And the crowded couch of incest in the warrens of the poor."

The truth of the century-old position of Malthus on the

*Ferri: Criminal Sociology.

relation of abject misery to crime is shown by the single fact that, according to the 1891 report of the New York City Board of Health, improvement in tenement house sanitation had reduced the saloons in the improved districts one-third and the arrests in proportion. According to Malthus, the sociologist who accepts the principle that over-population should be checked but disregards moral restraint is compelled to encourage the other checks.

Such is the Malthus doctrine, tersely summarized, without its statistical proof. Malthus' figures and the opposing statistics of Sadler were carefully contrasted five decades ago by Macaulay and the first shown to be correct. So far, therefore, as the data at his command permitted, Malthus was justified in his dicta.

The question now arises, how far the Malthusian doctrine influenced the vice and misery of its time? How far it is justified by the biologic data of today. How far it has influenced current thought; and, finally, how far it is applicable as a remedy to modern evils. The error of the late eighteenth and early nineteenth century in dealing with vice, pauperism, misery and crime was, as has been abundantly shown, the attempt to aid people without encouraging them to aid themselves and thereby retain their powers of self-help, without which the human being becomes a parasite. Further error, then also existed, of booming population under pretense of obeying a divine command, but really for the purpose of using passion under forms of law to grind out material for plutucratic uses. The direct influence of the Malthusian doctrine was not so quickly demonstrable as its indirect. It almost immediately met with favor at the hands of the leading sociologists, however contrasted their views. It dealt what proved to be a death blow to legalized mendacity. It made parish relief a stigma to the self-respecting poor of the high type which Dickens has drawn in Betty Higden of "Our Mutual Friend." It dealt a blow to child labor through the influence it exerted on Macaulay, which led to parliamentary regulation. By stigmatizing the desire for post mortem notoriety evidenced in almshouses, hospitals and refuges it checked

the increase of them. Its direct influence was, therefore, enormous. It undoubtedly stimulated, by its prudential teachings, the poorer classes to self-help. Nitti, despite his socialistic bias, which leads him to make a malign fetich of everything that seems to favor individualism, admits that as late as the sixties of the present century Malthusian doctrine exerted a beneficial influence on the working class because it was a brutal affirmation of egotistic individualism. Well-conditioned workingmen, seeing in the absence or scarcity of children a means of putting an end to the difference between them and the lower class, who, knowing that they had to rely upon a small income, feared that a large family might reduce them to the condition of workingmen; people who were independent, desirous of maintaining their social position, all accepted it enthusiastically.

Nitti here completely disregards, in his designation of the doctrine as brutal egotism, the fact that, according to his admission, it restrained but did not suppress an explosive appetite. Restraints of this kind constitute the basis of ethics, especially restraint on the sexual appetite, since, as Maudsley has well said, in language paraphrased later by Henry Drummond, were men robbed of the instinct of procreation and of all that spiritually springs therefrom, that moment would all poetry, and, perhaps also, his whole moral sense, be obliterated from his life. This Tennyson's Evolutionist saw:

"If my body come from brutes, my soul uncertain, or a fable,
Why not bask amid the senses while the sun of morning shines,
I, the finer brute, rejoicing in my hounds and in my stable,
Youth and health, and birth and wealth, and choice of women and wines.

If my body come from brutes, though somewhat finer than their own,
I am heir, and this my kingdom. Shall the royal voice be mute?
No, but if the rebel subject seek to drag me from the throne,
Hold the scepter, Human Soul, and rule thy province of the brute

I have climb'd to the snows of Ages, and I gaze at a field in the Past,
Where I sank with the body at times in the slough of a low desire,
But I hear no yelp of the beast, and the Man is quiet at last
As he stands on the heights of his life with a glimpse of a height that is higher."

Nitti's position is that of one who would maintain that the negro was a higher being when, immediately after the war, he increased, under the pauperizing influences of the Freedmen's Bureau, 33⅓ per cent, than now when his decimal increase is but 11½ per cent, albeit his powers of self-help and sense of morality are increasing.

The *influence* of the Malthusian doctrine in increasing the checks of what Malthus calls the vice type, by preventing conception or destroying its product does not seem very demonstrable among the working classes when the persistence of fetichic customs of this type among even civilized people of the lower grades of culture is remembered.

On the whole, therefore, the influence of the Malthusian doctrine, directly and indirectly, on the misery of its time must be regarded beneficial, especially when it is remembered that through a psychologic law we underestimate the evils of the past and overestimate those of the present. Society, as Macaulay remarks, while constantly moving forward with eager speed should be constantly looking backward with tender regret. But these two propensities, inconsistent as they may appear, can easily be resolved into the same principle. Both spring from our impatience of the state in which we actually are. This impatience, while it stimulates us to surpass the preceding generation disposes us to underrate their happiness. It is in some sense unreasonable and ungrateful in us to be constantly discontented with a condition which is constantly improving. But in truth there is constant improvement precisely because there is constant discontent. If we were perfectly satisfied with the present we should cease to, contrive to labor and to save with a view to the future. And it is natural that, being dissatisfied with the present, we should form a too favorable estimate of the past. In truth, we are under a deception similar to that which misleads the traveler in the Arabian Desert. "Beneath the caravan all is dry and bare; but far in advance and far in the rear is the semblance of fresh waters. The pilgrims hasten forward and find nothing but sand where an hour before they had

seen a lake. They turn their eyes and see a lake where an hour before they were toiling through sand. A similar illusion seems to haunt nations through every stage of the long progress from poverty and barbarism to the highest degree of opulence and civilization." Shelley more tersely says:

> "We look before and after,
> And pine for what is not,
> Our sincerest laughter
> With some pain is fraught:
> Our sweetest songs are those
> That tell of saddest thought."

For these reasons the amount of misery which existed in the past is not completely discernible. This unrecognized misery soon renders deficient an ample provision for the defective classes which seemingly underestimates rates of increase, but really ignores an amount of existing misery the product of several generations.

Life seems to increase at a rate which is the despair of thinkers like Tennyson:

> "Are God and Nature then at strife?
> That Nature lends such evil dreams.
> So careful of the type she seems,
> So careless of the single life.
>
> That I consider everywhere
> Her secret meaning in her deed,
> And finding that of fifty seeds
> She often brings but one to bear.
>
> So careful of the type, but no,
> From scarped cliff and quarried stone
> She cries, 'A thousand types are gone;
> I care for nothing, all shall go.'"

It was a feeling of this kind which led Malthus to enunciate, after careful examination of the data at his disposal, the following three propositions. First—Population is necessarily limited by the means of subsistence. Second—Population invariably increases where the means of subsistence increases unless prevented by some very powerful and obvious check. Third—These checks and the checks which repress the supreme power of population and keep

its effects on a level with a means of subsistence are all resolvable into moral restraint, vice and misery.

The first proposition, as Nitti suggests, makes the fundamental error of confusing real and potential increase. The error that with improvement in the environment the birth rate will increase indefinitely. It is peculiarly true here, as has been said by Herbert Spencer, that every vertebrate is an aggregate whose internal actions are adapted to counterbalance its external action, hence, the preservation of its movable equilibrium depends upon its development and the proper number of these actions. The movable equilibrium may be ruined when one of these actions is too great or two small and through deficiency or need of some organic or inorganic cause in its surroundings. Every individual can adapt itself to these changeable influences in two ways, either directly or by producing new individuals who will take the place of those whom the equilibrium has destroyed. Therefore there exists forces preservative and destructive of the race. As it is impossible that these two kinds of force should counterbalance each other, it is necessary that the equilibrium should reestablish itself in an orderly way. Since there are two preservative forces of every animal group, the impulse of every individual to self-preservation and the impulse to the production of other individuals, these faculties must vary in an adverse ratio. The former must diminish when the second augments. Degeneration constitutes a process of disintegration, the reverse of integration. Hence, if the term individuation be applied to all the process which complete and sustain the life of the individual and that of generation to those which aid the formation and development of new individuals, individuation and generation are necessarily antagonistic.

In the phenomena of unisexual generation the larger organisms never reproduce themselves in the unisexual way, while the smaller organisms reproduce themselves with the greatest rapidity by this method. Between these two extremes reproduction decreases while the size increases. In the history of all the plants and animals is evident the

physiological truth that while the general growth of the individual proceeds rapidly the reproductive organs remain imperfectly developed and inactive. On the contrary, the principle of reproduction indicates decrease in the intensity of growth and becomes a cause of cessation. Great fecundity is always attended by great mortality. Each superior degree or organic evolution is accompanied by an inferior degree of fecundity. The greater the germs the less is the individualization, and vice versa. The greater and more complex the organization the less is the power of multiplication. As animals rise in evolution, egg and fœtal life become longer, while on the other hand progeny naturally become fewer. It is a long way from the ten million codfish born from one female in a minute period to man with the single offspring born after a period of fœtal life that is increasing in duration. The progeny are much better fitted to survive, albeit so much fewer in number. Man in colonies, as Hawthorne* remarks, reverts at first one step backward in barbarism. There is at first an increase in frequency of birth and the number born at a birth. Both of which phenomena are expressions of degeneracy. The degenerates are, moreover, from various causes drawn to colonial life and increase this reversion. Degeneracy through its tendency to generalize rather than specialize function causes too rapid development of cells, which tend to extinguish each other, thus preventing proper ovulation. The same condition prevents proper development of the ovum if formed and fecundated; and finally causes too stimultaneous development of ova, which tend to destroy each other. The same cause produces also premature extrusion of ova. Under given conditions this principle tends to produce reversions in type in the shape of too frequently repeated and abnormally multiple births. It has been noted that even the ancestors of those predisposed to phthisis have numerous families and many children at a birth, albeit most of these die ere reaching the sixth year. Marandon de Monteyel finds that multiple and frequently repeated pregnancies often occur among the families of

*Scarlet Letter.

hereditary lunatics. This has been corroborated by my own researches. I found that ninety families of the hereditary insane averaged eleven children each. Six families had five children, four had seven children, eight had eight, ten had nine, fourteen had ten, eight had eleven, four had twelve, four had thirteen, four had fourteen, three had sixteen, three had seventeen, four had eighteen, three had nineteen, five had twenty and one had twenty-one. Twins, triplets and quadruplets were six times as frequent as among normal families. Manning has found similar conditions among the hereditary insane in Australia. Valenta, of Vienna, who has also noted this among epileptics, reports the case of an epileptic mother who had thirty-six children, including six twins, four times quadruplets, twice triplets. Her daughter, also an epileptic, bore thirty-two children before she was forty, including quadruplets twice, triplets four times and twins once. It is obvious, therefore, that while the rate of increase becomes larger with the rise in evolution, the increase is as to quality and not quantity. And furthermore, the struggle for existence occurs on a higher plain. The contest is not between simple physical force or low cunning, but between intellect. This is further aided by certain consequences thereon resultant. Malthus in his second proposition ignores that law of evolution on which the loss of explosive force depends; animals with a rise in evolution waste less food. Man has developed, with his rise in evolution, a tendency to utilize food to a greater degree by wasting less, by employing new articles, by new methods for obtaining and distributing food. The invention of the canoe by the low Fuegians when driven from their forests trebled their food supply. When man learned to cook he diminished waste by putrefaction enormously. The food waste of nomad races, whether pastoral or not, is greater relative to that of the men of the pile dwellings, while their waste is still more enormous as compared with European nations. Modern chemistry is continually decreasing waste directly from the food itself and by increasing its production.

Malthus, from recent researches, evidently underrated

the influence of his checks and failed to detect others. As the study of folklore has shown, primitive beliefs as to prevention of conception, abortion, infanticide, exposure of deformed children, the legality of euthanasia for incurable diseases still have to be reckoned with in civilized life. While the force of Malthus' propositions has been somewhat weakened by the biologic data of today, still the rate of increase undoubtedly justifies the application of his check for the benefit of mankind.

There are some other factors connected with the regulation of populist increase which justify the position of Malthus. Although it has been claimed that polygamy tends to increase, this increase has not been adjusted to the comparative decrease caused by the greater proportionate death rate of children under five in polygamous countries. Herbert Spencer is fully justified in the position that he takes as to the influence of monogamy in the decrease of infantile mortality. Bertillon has shown that in France in every age the celibate population is struck by a mortality nearly twice as great as the other; that its births merely make up 45 per cent of its annual losses; that it counts every year twice as many cases of madness, twice as many suicides, twice as many attempts on property and twice as many murders and acts of personal violence. Consequently, the state has to maintain for this celibate population twice as many prisons, twice as many asylums and hospitals, twice as many undertakers, etc. The desirable age for marriage is from twenty-two to twenty-five for men and from nineteen to twenty for women. In England more than half the marriages of men (504 in 1000) and nearly two-thirds of those of women are contracted before the age of twenty-five. Now, this is only the case in France for .29% and in Belgium for .20% of the marriages. A demographical phenomenon of the same kind is observed in Italy, where only 232 men out of 1000 marry before the age of twenty-five. At Paris, where the struggle for existence is more severe and where the care for money is more predominant, late marriage abounds, and it is only above the age of forty for men and thirty-five for

women that the marriage rate equals and even exceeds that of the whole of France. It is self-evident that the result of this must be a decrease in the total of births by marriage. Whether these facts proceed from the growing difficulties of existence or from fear always augmenting, also of trouble and care, or from these two causes combined and mutually strengthening each other, the consequence is the same, marriages are becoming more and more simple commercial transactions, from whence arises that worse and most shameful of selections, Letourneau remarks, selection by money. As a moral demographer, A. Bertillon thunders against what he calls "the system of dower," more peculiar to the Latin races, who get it from Rome, where recourse was doubtless had to it in order to emancipate patrician women from strict conjugal servitude. But the remedy has become an evil, and it is surely to the love of the dower of the "beautiful eyes of the casket" that must be attributed a whole list of true marriages by purchase, much more common in our own country than elsewhere.

Sometimes it is old men who conjugally purchase young girls, and sometimes old women who buy young husbands. As regards them, France is unworthily distinguished beyond other nations. In our tables of statistics, for example, the proportionate number of marriages between bachelors from eighteen to forty years and women of fifty years and upwards is ten times greater than in England.

MARRIAGES WITH WOMEN OF FIFTY YEARS AND UPWARDS.

(In a million marriages.)

IN FRANCE.		IN ENGLAND.	
Age of Bachelors.	Number of Marriages.	Age of Bachelors.	Number of Marriages.
18 to 20 years	64	18 to 20 years	0
20 to 25 "	109	20 to 25 "	5
25 to 30 "	151	25 to 30 "	12
30 to 35 "	138	30 to 35 "	22
35 to 40 "	257	35 to 40 "	40
	769		79

The first group, including the married men from eighteen to twenty years with women of fifty and upwards, is unknown in England; and that the second group, that of the married men of twenty to twenty-five years with women of fifty years and upwards is scarcely represented. It is important to note also that these figures only refer to first marriages. Tables of the same kind showing the marriages between young girls and old men, or between aged widows and young men would add up to confusion.

MARRIAGES WITH MEN OF SIXTY AND UPWARDS.

IN FRANCE.		IN ENGLAND.	
Age of Girls.	Number of Marriages.	Age of Girls.	Number of Marriages.
15 to 20 years	94	15 to 20 years	2
20 to 25 "	139	20 to 25 "	15
25 to 30 "	176	25 to 30 "	32
30 to 35 "	242	30 to 35 "	49
	651		98

The fact that among the English-speaking people in whom neither religious celibacy nor the celibacy resultant on standing armies has obtained to any great extent the marriage age is continuously rising, and the fact that the educated, refined woman after twenty-five has a greater chance of matrimony than the uneducated class, significantly indicates that the influence of Malthus has been a decidedly potent factor in the advance of the race. And this, despite the fact that he underestimated the increase of subsistence resultant on the utilization of waste and overestimated the human rate of increase.

DANGEROUS PARANOIACS—WITH AUTO-BIOGRAPHY OF ONE.

By J. E. COURTNEY, M. D.,
Poughkeepsie, N. Y.

IN VIEW of the comparative frequency with which the world is shocked by what appears a rather purposeless attempt upon the life of some well-known person, it appears to me that some account of the individuals who commit such assaults, and particularly the autobiography of one, would not be uninteresting.

The difference in the station in life of the assailant and assailed, the seemingly studied publicity and sensationalism of the attack, the primitive weapon often employed, the evident neglect of means of concealment or escape, the bravado with which the act is defended even to the gallows, must awaken in the normal mind a suspicion as to the sanity of the party.

The term paranoia means to understand a thing in the opposite way, to put a false interpretation on things. It was used by Dr. Bernard Van Gudden, physician to Leopold the Second of Bavaria, to describe the vagaries of that eccentric monarch; and here there is a grim association of events, for Leopold, as if in fierce acknowledgment of the distinction, drowned Dr. Van Gudden and himself, in the lake near the villa where the doctor was treating him.

The persons who become paranoiacs have inherited an instability of the emotional nature, and are usually stamped with some abnormality of physical development. When the numerous stimuli of life impinge upon this too irritable brain, it has not the power to convert these impressions into normal thoughts and actions. The brain and nerve mechanism fail in adjustment to the complex conditions of

life, and an elaborate fabric of delusion grows up, often quite logically and ably supported, but from false premises. For one to become an interesting paranoiac one must be of good native intelligence, and educated along certain lines at least. Eccentricity, fanaticism and nihilism are not true paranoia; but where the crank stage of this disorder ends and the paranoiac begins is often one of the most perplexing questions which the science of medical jurisprudence has to settle. The conditions, then, to produce a dangerous paranoiac are an excessively irritable brain, ambitions far beyond capacity to obtain, a sensitive and suspicious nature, a tendency to moodiness, solitude, introspection and dreaming; an exalted egotism, demanding recognition and unearned preferment in the world's great affairs. To the mind so constituted, the only explanation of failure is adverse and systematic conspiracy. Then comes the delusion and hallucination; the flight from the imaginary enemies, the pursuit by them, the appeal to the highest authority for protection and revenge; and failing to find relief, the desperate act; and the world is horrified by the murder or attempted murder of the president of a republic, a distinguished clergyman, the mayor of a great city or an empress traveling incognito. History and our own times abound in most interesting instances. I believe that a better understanding on the part of the public of the symptoms of this trouble will lead to the timely apprehension and examination as to sanity, of some so-called "harmless cranks," and so save valuable lives.

Cambyses of Persia and Nero of Rome each murdered several members of their families.

Charlotte Corday studied a pagan type from Plutarch's Lives, took the book with her to Paris and was anxious to stab Marat while in the convention, and waited about several days before going to his house. She gloried in the act, asked to have her portrait painted and refused to make any defense at her trial.

Justin McCarthy, in his History of Our Own Times, says of the half dozen or more attempts of this kind on Queen Victoria: "It is proper to say something of them,

although not one possesses the slightest political importance or could be said to illustrate anything more than sheer lunacy or that morbid vanity and thirst for notoriety that is nearly akin to genuine madness.

"One of the men, Edward Oxford, was an absurd creature with a longing to be a political prisoner and to be talked of. In the trial of an other, John Francis, it appeared doubtful whether the pistol was loaded, and the whole performance seemed merely a piece of play acting, done out of a longing to be notorious." This sort of comment is applicable to the whole list.

John Clark Ridpath, in the Life and Works of James A. Garfield, speaking of Chas. J. Guiteau, says: "He was a mixture of fool and fanatic, but had managed to build on a basis of total depravity a considerable degree of scholarship; he advanced a claim to be consul general at Paris, and so conceived the hatred for the President. He was tried and executed, though much doubt of his sanity exists.

A few years ago an educated young English woman shot at the Irish patriot O'Donovan Rossa in New York City. Her subsequent history showed her to be a typical paranoiac.

Most alienists and many laymen believe that Prendergast, who murdered Mayor Harrison, of Chicago, was insane and a paranoiac.

A study of the lives of these characters show a striking general uniformity of mental trend and motive.

In the autobiography of *J. G. R.*, the delusive controlled his actions. The facts can be verified from the court records of the City of New York. He was arrested and tried for firing at a clergyman on the steps of the Fifth Avenue Tabernacle.

AUTOBIOGRAPHY OF J. G. R.

"I call attention to a great crime, which has hardly its equal in history.

"I came from Germany to this country, to try my luck here, numerous as were the obstacles. In time I succeeded

in entering into business connections which enabled me to earn on the average as much as ten dollars a day.

My earnings increased, in the course of time, and I hoped to establish, after a few years, a business in which thousands could be made, and which I thoroughly understood.

Naturally I felt quite happy, the more so because I could support my aged father and my eldest sister, who cared for him.

Fate, however, is fickle and deceitful. A conspiracy was inaugurated against me, unparalleled by anything heard of before. It was conducted by cunning and unscrupulous emissaries or agents who considered me a means by which they could extort money from wealthy people.

So cunning is their work that no one can ever find them out. Even honorable people without the least knowledge on their part of their infamous purposes, are indirectly used by them as assistants in their ignominious endeavor to keep me in poverty and distress. The question must naturally arise: How in all the world is it possible that such a conspiracy, which is a real mockery of all human and divine laws, could exist in the nineteenth century for fully ten years, and in a civilized commonwealth at that?

In answering, I have the following to say: I was then, as people often assured me, of very good appearance and in the best of health, for which I was generally envied.

As a matter of course, but unfortunately for me, wealthy gentlemen and ladies took a lively interest in me, and sought my acquaintance. Naturally, the gentlemen were anxious to find out all particulars about me before they gave me an introduction to their families. It is a custom in this country to use for this purpose the services of so-called private detectives, male and female, nine-tenths of whom are heartless and unscrupulous, who will ruin a man if they can only profit by it. These agents saw at once that there was money in this thing if only artfully managed.

They organized themselves into a permanent, regular

corps of observation, watching all my steps and doings by day and night, and succeeded in running, and keeping me down.

In the first place, they persuaded other people that I was a man afflicted with all possible bad passions and faults. Whenever one or the other desired to convince himself by personal observation whether the agents were repeating the truth, the latter enacted a farce calculated to mislead and create a false impression. It is one of the favorite tricks of these emissaries to divide themselves into several parties in order to create this impression, that they are working one against the other.

Knowing that I was a native of Germany, the principal agent employed chiefly German men and women, who understood how to persuade the Germans with whom I associated, that they were commissioned to watch me for my own safety, and to defend me whenever and wherever it was required.

I was often kept in a state of stupor, which deprived me of power of acting and thinking. Often had I been wondering why I did not do what I ought to have done or the reverse, and what it was that could cause such a condition.

They must have given me internally some chemical mixtures, and I have reason to believe that also hypnotism or something similar was brought into use against me. I remember distinctly, for instance, that one evening when, on a visit in the Catskill Mountains during the summer, I tried to get up in order to join a party, I was powerless to do it.

I have often been trying to greet some person or speak to him, but, as if my arms and tongue were paralyzed, I was not able to take off my hat or to utter a single word.

I soon observed that I was closely watched by agents. I was given to understand from different sides that the proprietor of a hotel would like me to marry his daughter. I would have liked to, may be, but as the girl was rather sickly I declined the offer.

On a certain occasion I had a talk with the proprietor,

and told him that a man of my age, honest and sober, should think of creating a home for himself, but never would tie himself to a woman unless previously well acquainted.

The proprietor answered that he would consider it a great honor, were I to become a member of his family.

Suddenly a man appeared at the door and said he wanted to speak to the proprietor; the latter begged my pardon for interrupting the conversation and rather showed a great deal of inclination to resume the same, but now comes a second man, and between themselves they took the proprietor out. The eldest man's name was H. He was an agent, and I by a special chance overheard one of his conversations with the proprietor.

Said H.: "There must be put a stop to the renewal of the visits of this fellow to this hotel." The proprietor answered: "I don't see how to prevent his coming." H. resumed: "Make him big bills, and give him a cold shoulder and he certainly will feel it and not come again." H. always seemed to keep himself in the background and direct the movements of the agents, for I only saw him once. Maybe he put on a false beard, so I would not know him.

I had previously seen him in Germany; and later, in New York City, he had the nerve to answer an advertisement inserted by me in some paper.

Twice did I see H. in Germany. In a court room I saw one of the agents dressed or disguised as a day laborer. The same man followed me west, the same I saw in Germany; a young man with an elderly-looking woman and a young girl. I saw the same persons here, but one at a time, and never the three together.

When I lived in Nineteenth Street there were three men just under my room, and I think I had seen the three in Germany; before, I had seen one at the Shakers, at Mount Lebanon, N. Y.; the third, aged thirty-five or thereabout, I saw in different dresses, once as a laborer, once as a tramp and another time as a policeman.

At this time I took my morning coffee with my land-

lord and lady;also my tea in the evening. After a while I noticed a breaking out on my face; having not had any trouble of the kind before I did not quite understand how this now happened. I used all kinds of internal and external remedies, but all was in vain. The pimples were the size of a pea. I thought at first it was erysipelas. I moved. Again I took coffee and tea. All of a sudden I threw away the coffee and the tea and promptly the pimples disappeared. So soon as I started tea or coffee again out they broke.

On some business, I once met some gentlemen in an office on Broadway, but suddenly one of those crafty emissaries or agents caused some chemical odors to penetrate into the room.

Owing to this mean trick I began to stammer like a drunken man, and was unable to utter a distinct word or grasp a single thought. Thus, this time again my plan for building up a future for myself was shamelessly destroyed by the combined effects of these agents.

Now, wherever I go, these diabolical agents are following me. They not only injure me in business, but are molesting every one who may come in contact with me. They place chemical odors in every room where I may be. The effects of these odors upon my system are as numerous as they are painful. Now and then I lose, almost, my consciousness, and with the utmost efforts can keep my eyes open.

Often, again, I experience a feeling as if my whole body was pierced with needles. At night, especially, these merciless agents pour such chemical odors or gases into my room that I have a choking sensation, and I am unable to breathe. Pain seems to squeeze my eyes out of the sockets, and visions arise before me.

The sufferings I endure can be felt and not described. I have no doubt that by such means a man can eventually be made insane. These heartless persons seem also to use electricity, as I often felt electrical shocks, especially on my head. I remember on one such occasion I felt within a few minutes four or five so powerful shocks on the right

side of my head that I had pains all day. On another occasion something like a spark of electricity went through the little finger of my right hand, in which I felt for several days an unusual itching. Where the itching began the skin hardened and an abscess formed, similar to a carbuncle, which I had to have cut.

To make it impossible for me to work up my business, or to flee from my tormentors, or to enter into family ties, these agents have the assistance of mind-readers, who reveal to them my thoughts and movements. Thus, they constantly receive information as to what I am about to do or where I intend to go.

In consequence of which they can precede me everywhere. Thus, they not only burst all my plans, but even remain hidden until I am away again. Besides, I can hardly write a single word without hearing it loudly announced by some mind-reader. To make things worse, they often use profane language, as if the same were emanating from me.

As to themselves, they try to appear as innocent and harmless fools. Their talk, their laugh, their language and their jokes only tend to delude. These agents and mind-readers are secretly laboring to keep me down and ruin me entirely.

That mind-readers are a dangerous element of society in general, can no longer be doubted, since Washington Irving Bishop, the well-known mind-reader, gave his famous performance during the months of February and March, 1887. It would now be simply ridiculous to deny that there are persons endowed with the gift of reading the thoughts of others.

Let us, therefore, be on our guard regarding the serious danger menacing society. The first thing to be done should be to warn the public against this new danger, and when the opportunity offers, proceed against the scoundrels.

For whenever, as in my case, they combine their own efforts with those of other cunning, unscrupulous people they may bring grave misfortunes and distress upon families as well as upon individuals. What happened to me is

likely to happen some day to somebody else. Every man would, by a similar conspiracy, under like circumstances, be ruined financially, physically and mentally, and his life become a burden.

At the time when this conspiracy began I was in the prime of life, with a bright future before me. Though endowed by nature with all that is required to make a man happy and successful in life, I had to endure for ten long years the pains and privation of a wretched life, ruthlessly persecuted from one end of the world to the other by the most cruel and heartless agents that ever existed. If it were not for the conspiracy I would have today a family of my own, money in abundance, and be as happy as man could be. But what is my lot now? My life is a failure and will probably remain so, if some one does not put a stop to the evil doings of these agents. But if they should continue their abominable course there is little doubt that my whole future will be destroyed.

The horrible feelings which men experience when their eyes open, and they can see before them their future hopelessly destroyed, can be imagined better than described.

I would, therefore, in the name of humanity, appeal to all citizens who have a moral sense of justice, to use their influence so that the negligent authorities of this community may put an end to this ignominious work by arresting all agents and their accomplices and placing them on trial.

Some time ago I read in the *New York Herald* the subjoined remarks, called forth by the arrest of a dangerous criminal, and applicable to this case: "When rascality amounts to almost genius, and particularly when it is accompanied by indomitable will, rare courage and deliberation, its suppression is indeed a public necessity." There is sufficient direct and indirect evidence to proceed against these emissaries, as a warning for other land sharks.

The peril of these combinations of unscrupulous agents who torment a man with exquisite cruelty, must not be taken too lightly. Laughingly they stab their victims in the back, and so secretly that no one but the victim can notice and feel it. The worst is that these wicked

scoundrels have at their disposal all possible new inventions, by which they can in time ruin even the strongest man, mentally and physically. No one who is not initiated in their mysteries can imagine by what means these modern assassins gradually ruin their victims. I owe it only to my marvelously good health and stout constitution that I still live without having lost my senses.

Furthermore, I will say that these cunning emissaries try to acquire for their schemes the aid of respected and wealthy persons, so that the latter may become their accomplices without knowing it. I would, therefore, say to all citizens and authorities who have, directly or indirectly, aided these hardened, unscrupulous agents, or who are about to aid them, in the immortal words of the great German poet:

"Such is the course of evil deeds, that other evils follow in their train."

If you earnestly propose to put a stop to the wicked doings of these fellows, you should take the work in hand earnestly and at once; there should be no compromise whatsoever, but the Gordian knot must be cut by a decisive stroke.

I ask nothing but to be left in peace, so that I may pursue my business like any other citizen of this free and blessed country. I will add that in my despair I attempted three times to flee from my tormentors, but it was in vain. I left New York for the West. I had no means and had to return when I was 300 miles from New York City. The next time I went to Germany, but the diabolical agents were always after me like so many bloodhounds. In my despair I determined to join the Shaker Community at Mount Lebanon, N. Y., but I could remain there only a few days; the agents by their infernal machinations again drove me away.

I published a circular, stating that a conspiracy had existed against me for ten years, and promising to publish the history of it, and asked the public to subscribe.

THE SHOOTING AFFAIR.

I could now see that there was nothing before me but ruin, with the death watch behind me. I concluded to appeal to the authorities, to investigate my case and rid me of those cruel criminals. I wrote to the Grand Jury, stating my case and asking that body for justice. I wrote two registered letters to the District Attorney to the effect that I was now desperate, and that if he denied me justice and did not proceed against my persecutors I would shoot at somebody. My complaints were ignored. To the same effect I had complained to the police authorities.

I wrote a letter to an *eminent clergyman* about the middle of November, to the effect that if he and his wealthy friends would not do something to stop the conspiracy I would shoot him in the course of eight to fourteen days. I of course expected this to be handed to the police, I arrested and the case investigated. Nothing of the kind happened. I concluded to force the authorities by *aiming* at Dr. H. with a revolver, but had I done only this the whole effect of the affair would have been spoiled. I postponed the shooting, afraid I would shoot somebody accidentally; but one day late in November the avenue was empty, and no body between me and my poor victim, so when he came out of the Tabernacle I fired the first shot; the next when he had ascended a few steps. I held the pistol so the ball struck about the middle of the steps, and not the window facing, as I read in the papers. He opened the door and disappeared. To use his own words, I "fired the third and last shot after he had passed through the door." Everybody can see that I had no intention of killing him. I waited ten minutes for an officer, and then allowed the janitor to hold me till some one brought one. I think the officer on duty was kept away by an electro-magnetizer and accomplices who knew that I wanted to be arrested to end the conspiracy. I was arrested and the case heard, *but alas, I was simply declared insane.*

POSSIBLE CAUSE OF INSANITY AMONG AMERICANS IN THE ORIENT.*

DR. ALBERT B. ASHMEAD,
New York.

PERHAPS Dr. Abernethy, whose letter in the *Philadelphia Medical Journal* September 8 ("Does Life in the Philippines Produce a Species of Insanity Due to Physical Distress?") I have read with deepest interest, might find a more reasonable cause for "the *species* of *insanity* prevailing among the troops in the Philippines" in the life they may lead there.† What my venerable German colleague, Dr. Wernicke, said of foreigners in Japan may be true of us in the Philippines. I do not know whether it is or not. But I know that the life of the foreigners (not only Americans but all nationalities) in Japan twenty-five years ago, shortly after it was opened to Europeans, was as bad as Wernicke said it was, and worse.

The happy divergence from dreary American life, which consists in making the beverage further and cheer the meal, leads to its peculiar excess. But even worse than these is our detestable American abuse of *drinking* and *treating;* it has been preserved there, and its worst form is the so-called "cock-tail."

The craving to introduce into the stomach, shortly before a meal, a certain quantum, even if it be moderate, of distilled liquors, is so unphysiological, not to say loathsome,

*A letter from Dr. Ashmead, late of Tokio, now of New York. Late Foriegn Medical Director, Tokio Hospital, Japan, and physician in charge of the *Yoshiwara* (Licensed prostitutes of Tokio).

†NOTE. Now that the election is over we may admit that soldiers are not Sunday School scholars.

that it is well worth while to say a few words about the custom in the Orient. The "cock-tail," like many other inventions of idleness, *blase* by drunkenness, is prepared with some solemnity in the East. Into a glass tumbler is poured a quantity of gin proportioned to the number of the partakers, a much smaller one of that extractive, which, under the name of "bitters," is imported in large quantities, and, at the best, a glass of water and a moderate quantity of sugar in powder, is added to this mixture. This mass is stirred with an instrument looking very much like a twirling wire, until a loose foam accumulates hand-high over it, when it is drunk out of tumblers, immediately before a meal, more especially the warm lunch, or tiffin, of the East. The water can be replaced by champagne, another kind of liquor may be chosen, instead of gin, and gives then its name to the mixture. The chief name is derived either from the various liquids, which remind one of the many colors of a cock's tail, or, according to another version, from the feather which was formerly used in fixing it.

However many there may be who deny it, whosoever is in the habit of taking his cock-tail before his meals (and only Americans do), falls irretrievably into the power of *drunkenness*. Of course, regular appetite is out of the question with such persons, the assimilation is, in a measure, lowered, and if the alcohol does not display its destructive effects as rapidly as under the tropics, this is to be attributed to some peculiarities of the climate.

It has been asserted by friends of spirituous liquors, as an absolute truth, that, owing to the *relaxation* (as we will say for shortness) caused by the moist climate, a certain quantity of alcohol is indispensable as a stimulant. They have ready to hand manifest proofs; how this or that habitual tippler is in much better health than others of the same age and same constitution; they point to the rapid loss of bloom of the abstemious women; they insist upon the fact that the natives themselves, even those who live temperately, have of yore countenanced the general use of an alcoholic beverage. I cannot say that this theory has

absolutely no leg to stand on. There is especially one fact that is beyond all doubt; that women in the Orient (I mean foreigners) have found themselves much better when allowed the use of red wine, when a strong breakfast wine was medically prescribed for them. However, even these reasons are not sufficient to make us disregard entirely all discrimination between spirituous drinks,or sanction their use at a time of day in which the empty stomach, in strong congestion of the mucous membrane, prepares itself for the reception of food.

It is a bad sort of distilled drink, call it by what name you will, that is sold to soldiers, sailors and loafers in the common bar-room, *kept by foreigners*, and in the native pleasure houses.

In the summer of 1876, the events caused thereby, which took, frequently enough, a character shameful for Europeans and Americans, created a very great sensation. "Could not the Consuls in common with the representants of the foreign powers and the *Japanese* authorities, contrive some means, if not to destroy, at least to attenuate this great nuisance, which the Consul General of the United States, at Yokohama, has so often pointed out—*the sale of really poisonous kinds of brandy*, of such kinds as lead to deathly intoxication *and insanity?* The horrible scenes to be witnessed every day on the streets and the cases which are continually brought before the Consuls, cry aloud for a remedy, for a systematic measure, if such a measure is possible, to protect the sailors from these terrible places. To see splendid young fellows, and old experienced sailors lie about the streets, surrounded by staring natives, or dragged to the Consulates in their drunken helplessness, is a scandal of the worst sort, shameful for them and for us. Would it be impossible to make the 'Temperance Hall' useful in this direction, or to organize the 'Sailors' Home,' as a help to our sailors against this contemptible degradation?"

Thus spoke Captain Brinkley, of the *Japan Weekly Mail*, in a long editorial, very properly.

The behavior of those intoxicated sailors, not only in

Yokohama, but also in Nagasaki, the latter the wickedest city in the whole Orient, was more than bestial; they had themselves carried by twos or threes through the streets in a jinricksha, howling like *mad men*, and treating the poor natives, even then polite and self-controlled, to brutal kickings, often the only payment he obtained. Every white man blushed for those countrymen; and for many cases *"the poisonous liquors" were but a weak excuse.*

What the Oriental must have thought of their models of civilization is not the least interesting question in a study of the conditions. Himself sober, conscientious, temperate, as the Buddhist *tea drinker* presents himself,he sees his European master, at perfect ease, at a certain degree of intoxication. While singing and dancing in Japan is left to women, the Europeans dance in a promiscuous whirl, altogether; singing, even screeching, seems to be the beginning of the end of every festival. He could watch other Europeans playing dice or cards by the hour, while the throat, fatigued by talking and smoke, had to be moistened strenuously. While the Japanese satisfies his craving for a smoke by six or eight whiffs from his small pipe, he sees often his illustrious, *highly civilized* master, hardly take the cigar out of his mouth, and mix liquids with smoke, until he goes to rest with a heavy step, blood-shot eyes and a disposition to use bad language. These are the pictures presented, not in all houses, of course, but yet too often, throughout the foreign colonies of the East, not to make you hesitate, if you are asked whether we Europeans civilize the Asiatic by our example.

We are also reminded of the number of young men who groan under the burden of miseries of their own seeking, so lamentably great throughout the foreign settlements of the Orient; of those questions well known in the history of syphilis, whether its especial variation, its sometimes endemic malignity, may not be due to the *mixture of two races*. The Spaniards and Portuguese were said to have contributed "the great ill" of the fifteenth and sixteenth centuries through their all too ardent love for the hot-blooded Indian women; thus, many Europeans declare that

they have been infected by their contact with apparently quite healthy Japanese women. Little heed as has been given to these assertions; little as we ourselves, when we were there, countenanced these theories, they might yet contain a grain of truth. I said "apparently healthy" advisedly; for, like many other physicians, I have been often surprised at the difference of symptoms which appear in the infected foreigner and in the woman who is guilty of the infection. The inculpated woman of the Orient was hardly aware that anything was the matter with her; to be sure, she remembered that three or four years ago she had required some medical attendance, for a little while; on the other side, the man, after the meeting, showed in due time the worst secondary symptoms which are possible in a dangerous infection. This *latency* is sometimes really phenomenal, and not seldom perfectly sufficient to teach even conscientious and experienced doctors.

The subject, although it is by no means a new one, is very important in the life of the young men in the Orient.

In the East, the foreigners' interest in things going on in the Mother Country, or in the world at large, is diminished in a lamentable way. Every thing of any importance is known by telegram, three days after the event. Then come, for six weeks, the newspapers, unsuspecting of what is known, with their surmises, their incomplete premises, their conclusions, long ago refuted by the facts, and which appeal rather to our pity than our interest. Also, the slow progress of the sciences, the special works of industrious investigators, appear from that far-off perspective, at that small angle, little — microscopic. And what, after the labor and heat of the day, does the hour of recreation offer him? At the best, a comfortable conversation, with such as are still capable of such exertion; the consolation of music, as far as the accomplishments go, or else shallow amusements, poor artistic productions, *brandy and water*, beer, tobacco and dice or cards are there to remind the European of "his nobler origin."

SELECTIONS.

NEUROTHERAPHY.

TREATMENT OF TINNITUS AURIUM.—Drs. Cuvillier and Vassal. (13th International Medical Congress.) The subjective noises designated commonly tinnitus are the result of irritation of the auditory nerve in its terminal labyrinthine ramifications, in its course or at its central origin. They can also exist without lesions of the auditory apparatus, as in anemics, neurasthenics, or after the absorption of medicaments, such as salicylate of soda, sulphate of quinin, etc. The nature, quality, intensity and duration are variable. They are manifested sometimes without any deafness; they may precede it. Generally they come on and augment simultaneously with it. They constitute one of the most painful symptoms of auricular affections. Tinnitus aurium occurs: (1) Inflammatory and traumatic lesions of the external ear and middle ear. (2) In sclerotic otitis media. (3) In infection of the internal ear. Tinnitus arising from the canal occurs when a foreign body or a mass of cerumen obstructs it, in otitis externa and furuncle. The treatment employed for these will cause the tinnitus to cease. In acute diseases of the middle ear it is the same. If the tinnitus persists after cure of the initial affection, douches of air by Politzer's method combined with massage of the drum are the best methods to employ. In dry or sclerotic otitis, tinnitus exists in the majority if not in all cases. Treatment should tend: (1) To diminish the irritabilty of the nervous centers by internal revulsive medication. (2) To combat ankylosis of the ossicles, adhesion of stirrup and fenestrum ovale and dimish intra-labyrinthine pressure. Internal Medication and Revulsion: Painting the

skin of the canal, tampons of cotton saturated with medicaments, lotions of narcotic solution such as quinin, cocain, etc., have a good effect. Revulsion to the mastoid process by applications of tincture of iodine, friction with Fioraventi balm, small flying blisters, above all the actual cautery, often procure a sensible amelioration. Of the extolled internal remedies we retain only the iodid and bromid of potassium, valerianate of ammonia and quinin. Cimicifuga which has been much vaunted of late has not given any durable effect in numerous cases where we employed it; it ought to be abandoned. Bromide and iodide of potassium together are the medicaments of choice in tinnitus due to sclerotic otitis. In tinnitus and vertigo provoked by lesion of the internal ear, quinine certainly gives good results. If the tinnitus is of reflex origin (affections of the stomach or uterus, dental caries, etc.), the treatment should be directed to the cause. Electricity (induced current, positive pole to the mastoid or canal, negative to the neck) has also been advised, but should be used with prudence because of the brain's proximity. Besides, the results obtained do not justify expectation. Mechanical treatment: The most important thing is to diminish the compression of the labyrinth which tends to force the stirrup into the fenestrum ovale. If the patient can be seen regularly catheterize the eustachian tube every other day and insufflate air directly into the tympanum. In case of very intense tinnitus it will be beneficial to charge the insufflated air with vapor from chloroform, ether or bromide of ethyl. If the patient connot be treated regularly, air douching by the Politzer method is better. The insufflation of the eustachian tube should be combined with massage of the tympanum and rarefaction of the air in the external auditory canal in order to keep the ossicle mobile. Siegle's speculum or other masseurs for the drum may be employed. The affection being tenacious and having no tendency to spotaneous cure, the treatment, both internal and mechanical, ought to be be continued with patience and perseverance and in many cases the tinnitus will diminish and disappear.—A. M. in *St. Louis Medical Review.*

PHYSIOLOGICAL AND ARTIFICIAL SLEEP, AND THE NEW HYPNOTIC—CHLORETONE.—Chloretone being sparingly soluble and readily absorbed into the blood is carried in considerable quantities to the cerebral tissue, and the individual falls into a profound sleep. After a time the Chloretone is gradually carried away from the nervous tissue, chemical activity is renewed in the cerebral cell and fibers, and the condition of being awake is restored. When administed internally Chloretone produces not only profound sleep, but complete anesthesia can be made to last for days.

It has been my privilege to use Chloretone in quite a variety of dissimilar conditions. The first instance was in a case of interstitial induration of the lungs with most persistent insommia. The next case was one of insomnia in connection with nervous exhaustion from over anxiety, and followed by acute alcoholism. In this instance the results were all that could be desired: the remedy seemed to have a very soothing effect upon the irritable gastric mucous membrane.

In a case of very pronounced insomnia of long standing, the patient secured eight hours of very refreshing sleep from two doses of six grains each, taken two hours apart. The second night the same amount of sleep was secured after one dose of six grains. The patient awoke thoroughly refreshed and with no unpleasant effects so often witnessed with many chemicals used for producing forced sleep. This lack of after-effect is one of the strong features in connection with the use of Chloretone.

In a case of acute mania following a slight operation upon the eye, twelve grains of Chloretone produced a peaceful night's sleep, with the disappearance of delirium the next day. In the acute infectious diseases it has in a very large majority of instances produced the desired effect. The best results seem to follow the administration of two doses of ten grains each, about two hours apart. If Chloretone is to be administered in capsules it should not be made up into a mass, but rather put into the capsules dry.

In the course of the discussion which followed the reading of Dr. Porter's paper, the latter said: "The fact that

Chloretone is an anesthetic to the stomach make it peculiarly valuable, for most of our hypnotics have a strong tendency to excite more or less gastric irritability, and in this respect do harm as well as good. In the case of acute alcoholic gastritis reported, in spite of the vomiting of food the patient was able to retain even the first dose of Chloretone without any difficulty and steadily improved under its influence." The speaker stated that he had injected several ounces of a one-per-cent solution of Chloretone into irritable bladders and found that it had a very quieting effect. He had not observed the slightest evidence of cyanosis while patients were under the influence of Chloretone. He had used it freely in all kinds of cardiac lesions, and in some instance had continued the administration in small doses for several weeks, put had never observed any depression of the heart from its action.—By William Henry Porter, M. D., Professor of General Medicine and Pathology at the New York Post-Graduate Medical School and Hospital in *The Post-Graduate*, May, 1900.

ANIMAL EXTRACTS IN INSANITY.—Dr. Parry agrees (*The Therapist*, Oct. 19, 1900) with Dr. Esterbrook that Brown-Sequard's generalization ("that all glands and all tissues have an internal secretion; which injected subcutaneously has a tonic effect") undoubtedly requires modification. From investigations on the insane he is of the opinion that those animal extracts which mainly consist of simple proteids (albumins and globuline) and albuminoids merely have dietetic effect. Those animal extracts which are rich in nucleins and nucleo-proteids produce when given by the stomach in sufficiently large doses (as 60 grs. *per diem* of the dried extract and upwards), temporary stimulation or all metabolism with subsequent anabolic reaction; this being evidenced by the common increase of the water, total solids, urea and prosphoric (and uric) acid of the urine, by the general tendency to a sub-febrile pyrexia, and most important of all by the initial loss of weight followed by a gain. This initial metabolic stimulation with its resulting anabolic reaction is, the explanation of the physical improvement or

"tonic effect" which occurs in a fair proportion of cases (usually under 50 per cent) and which if pronounced may be accompanied by mental improvement or even mental recovery. In this sense therefore these substances may be termed metabolic tonics. It is probable that in the living body these organs (cellular in type which are naturally rich in nucleins and nucleo-proteids) produce, in virtue of the metabolis of these substances similar distant "tonic" effects upon the general cell metabolism. In the administration of animal extracts in these diseases generally it is of the utmost importance to recognize that many of them (apparently those rich in nucleins and nucleo proteids) may produce this tonic effect. This explains many of the discrepancies in the result obtained by workers in the various fields of disease. It should save one from attributing to various extracts specific effects in disease in which *a priori* on the "internal secretion" hopothesis their use seems to be specially indicated; these effects being in reality the general tonic effect on cell metabolism, it is extremely doubtful whether each organ possesses a specific internal secretion in the sense intended by Brown-Sequard. Some organs probably have such an internal secretion, for example the active principle of suprarenals (sphygmogenin which powerfully increases muscular contractions and apparently diminishes tissue oxidation). So also the thyroid has an active principle (iodothyrin), whose specific effect is to stimulate cell metabolism or tissue oxidization for in this respect thyroid extract stands far above all others. When it is administered in large doses the anabolic reaction never sets in until after the cessation of the drug whereas in the case of all other metabolic extracts which have been used an anabolic rebound generally sets in during the continuance of the drug. Of all the various extracts thyroid, parathyroid, thymus, pituitary body, cerebral substance, choroid plexus, suprarenal extract, splenic orchitic, ovarian, uterine and mammary substance which were employed. Thyroid extract is the only one by which any decisive therapeutical results were obtained. It should be most certainly tried in all cases which threaten to become chronic. The other animal

substances are of very little if of any use in the treatment of insanity with the possible exception of that of cerebral substance.

DORMIOL.—Under this title is sold a compound; dimethglehylcasbinol-chloral devised by Dr. Fuchs (*Therapist*, Oct., 1900) which is a water-like liquid of the pungent menthol odour with a burning-cooling taste. It mixes in every proportion with alcohol, ether, chloroform, benzol, and fatty and ethereal oils. If it be left standing for some time with an equal quantity of water, it produces on shaking a clear solution. This watery solution is, with very few exceptions, readily taken by the patients there being but rarely any necessity of adding a vehicle, milk proving very suitable in the latter case. When given in this form the remedy seems to develop its action most promptly probably due to more rapid absorption. In its concentrated form it can be given in capsules or enema with gum arabic. When given subcutaneously a somewhat severe irritation takes place at the point of injection.

YOHIMBIN.—According to Dr. Mendel, yohimbin (a principle obtained from a bark used in the Cameroons as a remedy against impotence) has some value in cases of irritable weakness or paralytic impotence. In one case this action was almost immediate after giving the remedy; in other cases after some weeks use, erections took place which had previously not occurred for a long time, and which after the time of abstinence led to regular coitus. In half of the cases the remedy did not exhibit any noticeable action.

FISH-DIET AND LEPROSY.—A correspondent of the *Medical News* writes that at the polyclinic Mr. Jonathan Hutchinson showed a case of recovery from leprosy. All evidence of active disease had been absent for six years. The words "cure" and "recovery" meant cessation of disease processes, not absolute restoration to normal condition. He mentioned another case of a florid, healthy-looking man quite blind from leprosy, whose hands

were to some extent helpless from anesthesia and muscular atrophy. But for fifteen years he was free from aggressive symptoms. In the first case mentioned when the patient came under treatment he had patches on the arms and legs, enlarged ulnar nerves and dusky hands and feet from passive congestion. The treatment consisted in small doses of arsenic, liberal diet and abstinence from fish. In about eighteen months all traces of patches had disappeared from his hands and feet. From that time unusual slow restoration progressed, the hands became less dusky and somewhat less numb, and the ulnar nerves smaller. The patient enjoyed good health except that he suffered from dyspepsia. As long ago as 1879 Mr. Hutchinson published a case of recovery from leprosy. A woman returned from Barbados with leprosy in the most severe form—the tubercular. In the course of years, whilst residing in England, she recovered, but her hands remained numb and crippled. She was enjoined to abstain from fish. Mr. Hutchinson has since then seen many cases of recovery of lepers who have come from abroad to reside in England. The same observation has been made in America as to Norwegian lepers. Mr. Hutchinson attributes the fact that little or nothing has been heard until lately from leper establishments as to recovery to the fact that fish has been an important element in their dietary. Quite recently Norwegian authorities have asserted the curability of leprosy. Dr. Hansen has seen many cases, principally of the anesthetic form, but a few of the tubercular. In some a necropsy failed to reveal the bacillus in any viscus.

ORGANO-THERAPEUTICS IN MENTAL DISEASES. C.C. Easterbrook.—The origin of organo-therapeutics dates from Brown-Séquard's experiments in 1889 and the doctrine of internal secretion formulated by him that "all glands and all tissues have an internal secretion and all injected subcutaneously have a tonic effect" is taken as the text of this article. During the past five or six years Easterbrook has administered to various forms of insanity extracts of the following animal organs: The thyroid gland, the parathyroid

bodies, the thymus, the pituitary body, the brain, the choroid plexus, the spleen, the suprarenal bodies, the testes, the ovaries, the uterus, and the mammæ. With the exception of the thyroid, none of these have been very generally employed by alienists, and parathyroid extract so far as he knows has not been employed before at all. He carefully selected his cases among patients not progressing toward recovery under other treatment, and sought to avoid the fallacies of calling temporary remissions recoveries, or to attribute to the drug any improvement or change that might be due naturally to the course of the disease and he has also excluded all psycho-therapeutic influences in any form so far as possible. His patients were first weighed and put to bed on a diet sufficient to maintain the body temperature and body weight, careful notes made of the state of the bodily and mental functions, the excretions, the blood, urine, etc., with careful quantitive and qualitative examinations and microscopic studies. Sphygmographic tracings and observations of the blood pressure with sphygmometer were also made in some cases. In the one hundred and thirty cases tested with the thyroid extract, including a large number of forms of insanity and almost the whole range of symptoms of the disease, large and small doses were given separately and effects noted as producing changes in the temperature, circulation, nervous system, urine, etc. Small and moderate doses were tolerated well by all. Large doses were badly borne by those under twenty and over sixty years. Easterbrook suggests that, in the old, the thyroid gland is feebly functional and the system is not prepared for much thyroid secretion, while in the young it is freely active and the system well supplied, therefore any addition is superfluous. In the one hundred and thirty cases there are twelve recoveries which he thinks can be attributed to the drug and twenty-nine cases were improved. All the recovered cases had been selected as failures from former treatment, the average duration of treatment before thyroid medication having been eight months. Several cases that had been treated, recovered some time after, which indicates that a patient not cured by the thyroid method may still recover by other means.

Nevertheless his experience is that if the patient is going to recover under this drug it will be done with the first few large doses. When used in chronic insanity temporary improvement is common and he has found it useful in aborting periodic attacks of violence. The therapeutic effects of parathyroid were negative, the same is true as regards mental symptoms with thymus and pituitary extracts, though there was in some cases temporary improvement with both. Brain extract was used in nineteen cases, of which two recovered and three were improved. Choroid plexus extract was negative in its results. Suprarenal extract he thinks had some effect in increasing the blood-pressure and he would advise a systematic trial in maniacal cases. It seems also to produce a specific diminution of tissue oxidation. With the splenic extract there was in two cases temporary improvement physically and mentally with subsequent relapse. Of the eight cases treated with orchitic extract three were improved mentally while two others were physically benefited. Thirty-six cases were treated with the ovarian extract; two of the patients recovered long after the treatment, probably independently of it and four cases, mainly stuporous, were improved. Two of the patients in whom the ovaries had been extracted or destroyed by disease were unimproved either mentally or physically by large doses. Uterine extract was negative. The two cases treated by the mammary extract were affected with a rise in temperature and loss in weight, but no change in other respects; both however fully recovered, one after a careful thyroid treatment. In conclusion, he states that Brown-Séquard's generalization needs some modification. His own investigation led him to conclude that those animal extracts which consist mainly of simple proteids and albuminoids have merely a dietetic value, but those that are rich in nucleins and nuclein proteids produce when given in sufficient doses a temporary stimulation of cell katabolism and subsequent anabolic reaction. It is important to recognize this tonic effect. Apart from this it is extremely doubtful whether each organ possesses a specific internal secretion in the sense intended by Brown-Sequard. Some organs, however, as the

thyroid with its iodothyrin and the suprarenal bodies with their active principle have a decided special effect. Thyroid extract stands far and above all others in stimulating tissue oxidation, and anabolic reaction never sets in until after the cessation of the drug, which is not the case with other extracts.

ANESTHESIA BY SPINAL COCAINIZATION.—By Carl E. Black, M. D. of Jacksonville, Ill., in *Medical Fortnightly*. Surgeon to Passavant Memorial Hospital, and Our Savior's Hospital. The discovery of the anesthetic properties of cocaine was a great advance in surgery, and permits us to perform many minor operations under its influence with safety, yet the extended use of cocaine in large quantities and over large areas has long been known to be very unsafe. In fact cocaine is recognized as a treacherous drug, not always effecting patients in the same way, indeed not always effecting the same patient in the same way. Still its use is greatly extending. The eye surgeon could do little without it, and Schleich by his method of infiltration greatly extended its range of usefulness. Yet infiltration anesthesia has some objectionable features. First, it is of short duration. Second, it distends and disturbs the tissues operated on; and third, it has to be repeated in order to prolong the effect. As far back as 1885 J. Leonard Corning, of New York, published (*New York Medical Journal*, Vol. 42, page 483) his experiments in local anesthesia. In these first experiments he did not introduce a cocaine solution directly into the spinal canal, but injected it into the tissues about the cauda equina. Later, he carried his experiments farther and injected the cocaine solution directly into the spinal cord, and demonstrated conclusively that efficient anesthesia without unconsciousness can thus be produced.

His second article was published in the *Medical Record* in 1888 (Vol. 23, page 291). In his first report published in 1885, Dr. Corning concluded with the following: "Whether the method will ever find an application as a substitute for etherization in genito-urinary and other branches of surgery further experience alone can show." By the testimony and

the observation of what it may do has seemed to me on the whole worth reporting.

Thus we see that Dr. Corning, of New York, deserves full credit for having experimentally and practically demonstrated the anesthetic power of cocaine injected into the spinal canal. Just why his valuable observations, which now appear to have been absolutely complete should have been so long overlooked by the surgical world, is difficult to understand. His observations were published in our best and most widely distributed journals, and yet more than five years elapsed before attention was again called to this matter by A. Bier, of Germany.

Bier's experiments seem to have been carried on independently of those of Dr. Corning, and to him much credit is due for calling prominent attention to this as a new method of anesthesia in surgery.

Quicke's method of puncture was used. The needle is kept plugged until the point enters the spinal canal; the plug is then removed and a few drops of spinal fluid are allowed to escape. The syringe is then attached and a dram of a two per cent solution of cocaine is injected into the spinal canal, after which the needle is withdrawn. Of course this whole procedure must be carried out under the strictest aseptic precautions.

Following Bier's publication in the *Deutsche Zeitschrift fur Chirurgie* in 1889, a number of experimenters and practitioners took the matter up. The experiments of Corning and Bier were quickly confirmed by other observations.

Tuffier (*La Semaine Medicale*, 1899, page 363, May 16, 1900), of Paris, was one of the first surgeons of prominence to bring this method into general use. He reported a large number of cases with almost uniformly good results. He usually makes his injèction between the fourth and fifth lumbar vertebra, but gives little preference to exact location, sometimes selecting as high as between the first and second lumbar. For practical purposes, an imaginary line drawn between the crest of the ilia will pass over the center of the fourth lumbar vertebra. From this point it is very easy to

locate any space desired. Injection is easiest with the patient sitting on the edge of the table.

ANTAGONISMS OF CHLORAL-HYDRATE AND COCAINE.—The experiments of Gioffredi (*Munch. Medizinische Wochenschrift*) show that while chloral-hydrate in large (¾ grs.) doses acts as an effectual antidote in cocaine poisoning, cocaine has no such effect in chloral-hydrate intoxication. The same observations have been made with paraldehyde and sulphonal.—*Stylus.*

ELECTRICITY IN BRAIN FAILURES.—Reported to American Electro-Therapeutic Association.—Dr. D. R. Brower, Chicago, read a paper on the above subject. He finds that these cases are very often associated with a dilated stomach, and here he strongly advises the daily use of intragastric galvanization, using Einhorn's electrode. In addition he resorts to galvanization of the brain, using a current of one or two milliamperes for two minutes. This is followed by transverse and bulbar galvanization, and lastly by static insulation.

ELECTROTHERAPY OF INSANITY.—Reported to American Electro-Therapeutic Association.—Dr. Alfred T. Livingston, Jamestown, N. Y., described his very favorable experience with the use of electricity in cases of melancholia—a method almost unknown to those who have most to do with insanity. The treatment is founded on the theory that insanity is largely dependent, in the first instance, on circulatory changes in the brain. A current of ten to fifteen milliamperes is used on the lower pair of sympathetic cervical ganglia, one of eight or ten milliamperes on the second pair, and one of five or eight milliamperes on the upper pair, the electrodes being carefully slid along so as not to produce a break in the current.

THE QUESTION OF THE TRANSFORMATION OF CALOMEL INTO CORROSIVE SUBLIMATE IN THE ORGANISM.—This question was raised not long ago in the Paris Therapeutical Society. M. Pateni stated that such a transformation in the presence of sodium chloride, accepted

by Mialhe, was a fable; it was not true that calomel was changed into corrosive sublimate on contact with the alkaline chloride or with the gastric juice. M. Pouchet added that the bromide and the chlorides were powerless to convert calomel into corrosive sublimate; such a change took place only on contact with the alkaline iodides. If it did take place in the presence of chlorides, he said, it could not be avoided by the patient simply abstaining from salted articles of food; it would be necessary to remove all the chlorides from the organism.—H. J. C. SIEVING, in March 1900. *Stylus.*

CLINICAL NEUROLOGY.

EXOPHTHALMIC GOITRE.—According to Dr. English, of Detroit, exophthalmic goitre arises from the entrance into the blood of an altered secretion of the thyroid gland. The normal secretion is an enzyme affecting the tissue growth. In this disease a poison is secreted having an elective action on the nervous system, especially the sympathetic. In the common cases with early thyroid enlargement the gland is diseased and its toxic secretion irritates the gland itself. In the rarer cases without enlargement the gland is not so directly affected by its abnormal products.

ADIPOSIS DOLOROSA. PITUITARY TUMORS.—Dr. C.B. Burr of Flint, Michigan reports the case (*Jour. of Nervous and Mental Diseases*, Oct. 1900) of a woman thirty-six years of age, weighing three hundred pounds, with symptoms of lethargy, weakness and spinal paralysis who had lost control of the bladder and rectum. She was in the hospital in a semi-conscious condition for several weeks and then died with pulmonary œdema and acute nephritis. At the necropsy a tumor of the pituitary body about as large as a walnut was found involving the optic chiasm and penetrating upward into the ventricle. There was a marked internal hydrocephalus. The thyroid gland was normal in size and contained a secretion about as large as a chestnut. The lungs were œdematous and the ovaries small and hard. Microscopic

examination showed a high grade of intestinal neuritis in the nerve filaments and muscles and in the various nerves examined. At the seat of the pituitary body was a glioma. There was marked degeneration of the thyroid gland and absence of the secreting cells. The ovaries were non-functional and sclerotic. The case is of interest as showing the combination of adiposis dolorosa with neuritis and organic brain disease together with ovarian complication which may have had a bearing on the beginning of the trouble.

HAEMATOMYELIA.—Dr. J. Hendrie Lloyd reported a case of this affection (*Jour. Amer. Med. Asso.*, Vol. XXXIV) in a woman of middle life, who had received an injury to the spine from a fall down stairs followed by symptoms of injury to the third, fourth and fifth cervical segments. The patellar reflexes were exaggerated. There was complete paralysis of the respiratory muscles and the patient died on the ninth day. It was noticed that at one time there was a slight return of sensation, thermal, and pain in one leg. Regarding the etiology of this condition hæmatomyelia might result from diseased blood vessels or from trauma; most frequently from the latter. In this patient there was no alteration in the bony structures of the spine and the spinal membranes were found intact. At first sight the cord looked normal but microscopic sections showed that there had been an extravasation of blood into the lateral. In the anterior horns it was found that certain cells had undergone hæmochromatolysis.

TRANSVERSE MYELITIS.—Dr. A. W. Dunning has reported a case (*Jour. Amer. Med. Ass.*, Vol. XXXIV) of transverse myelitis in a twenty-year-old colored man of excellent family and personal history. He gradually developed the symptoms of a transverse lesion of the spinal cord at about the level of the fifth dorsal segment and his condition became progressively worse until about five weeks from the onset there was complete inability to walk, slight involvement of the sphincters and anaesthesia of the lower extremities of the trunk to the nipple line. There was then a period of three weeks in which the condition remained

unchanged followed by gradual improvement until six months later when he was able to walk with the aid of canes; the sensory symptoms were greatly improved and general nutrition was excellent. At this time however he suddenly developed a pneumonia and died ten days later. Within the year prior to the onset of the myelitis the patient suffered from an attack of gonorrhea which had not been cured. Immediately preceding the onset of the myelitis the patient stated that for two days he had been engaged in work in which he had been thoroughly wet and cold all day. Formerly this of itself would have been deemed sufficient cause for the lesion in the cord, but in the light of the present teaching of pathology we can not have an inflammation in these parts without infection of some sort. Doctor Dunning was of opinion that in this instance since there was no other apparent source of infection, the neurosis was due to gonorrheal infection and that protracted exposure to wet and cold simply favored the introduction and development of infection in the cord.

ON THE PATHOGENESIS OF CHOKED DISC—(Experimental Choked Disc)—Berry and Sym present this subject in the *Edinburgh Medical Journal* as follows: Dr. Merx of St. Petersburg has made (*Arch. f. Augenh.*, Wiesbaden, Bd. xli. Heft 4) an extensive experimental investigation, with the object of discovering the cause of encephalopathic neuritis. The subject is one which has been much discussed and experimented upon, but which is still unsettled. The two main views are those of Manz and Schultén (the so-called mechanical theory), and the inflammatory theory of Lebes. Each has had not a few supporters. Merz's investigation leads him to support in the main the mechanical view. He experimented on dogs and rabbits, and came to the following conclusions:—An increased intracranial pressure is sufficient to cause a choked disc. All that is necessary is, that this pressure should be continuous, and should exist for a certain length of time. A transient increase of pressure, even though frequently recurring, only gives rise to venous congestion and arterial constriction in

the fundus of the eye. A very small degree of increased intracranial pressure (8 to 15 mm. of mercury) is sufficient, though the greater the pressure the more rapidly do the various successive changes take place in the eye.

It is much easier to produce both the clinical and anatomical changes characterizing choked disc in dogs than in rabbits. As others have mainly experimented on rabbits, Merz supposes this to be the reason of the different results at which they have arrived. The first clinical symptoms in the eye, of increased intracranial pressure, are vascular—first, dilatation of the veins, then narrowing of the arteries; and these changes are met with earlier, the nearer to the eye is the point of entrance of the vessels through the sheath of the nerve.

The author considers that in his experimentally produced choked disc the increased pressure causes, first, a compression of the venous sinuses, and that this, notwithstanding the presence of anastomosis between the ophthalmic and facial veins, must at first, at all events, influence the circulation in the eye. Further, a stasis takes place in the liquids in the subvaginal space, producing, too, a compression of the vessels at their point of entrance into the sheath of the optic nerve. Finally, the pressure on the nerve itself creates a disturbance in its lymph circulation, and this leads to œdema of the nerve fibres, with consequent further compression of the vessel. When this interference in the blood and lymph circulation has lasted some time, it results in inflammatory changes in the nerve, nerve sheath, and papilla. Merz considers that the similarity between the human eye and the eye of the dog justifies one applying the results obtained in the dog to explain the cause of optic neuritis in man.

THE PUPILLARY MOVEMENTS have awakened renewed interest in the minds of Drs. Berry and Syms in the *Edinburgh Medical Journal* and following are their comments on this subject in review of Angelucci's recent work on the subject. (Angelucci *Arch. di ottal.*, Palermo, tome vii.). The experiments upon which his conclusions are based have

been many and various, namely, removal of the superior cervical ganglion, an operation which he has performed not only in animals, but in man (for the treatment of glaucoma); removal of the ciliary ganglion; stimulation of the nucleus of the third nerve, and of the corpora quadrigemina; section of the third nerve combined with section of the sympathetic in the neck, and also with the fifth nerve; stimulation of the anterior and posterior twigs of the ansa Vieussenii and long ciliary nerves; stimulation of the cerebral cortex, and others. Angelucci believes that the iris is moved by only one non-striped muscle, the sphincter pupillæ. This muscle is innervated by two antagonistic sets of nerve fibres, the one of which stimulates it to contract, the other being inhibitory in its action. These different nerve fibres are contained in the trunks of the third, fifth and sympathetic nerves. The third nerve nucleus (probably the so-called Edinger-Westphal nucleus of its anterior part) must be looked upon as undoubtedly a pupil-contracting centre. No similar cortical centre has been discovered.

Section of the third nerve causes dilatation of the pupil. The dilatation occurs also if the sympathetic is at the same time sectioned in the neck. This proves that the third nerve centre has not only a reflex but also an independent action, an action causing tonic contraction of the sphincter. A second pupillary contracting centre exists in the anterior quadrigemina. When they are stimulated superficially, miosis is the result. The axis cylinders of the contracting centre end in the ciliary ganglion.

These axis cylinders constitute the first or central neuron, the second pupillary contracting neuron is represented by the short ciliary nerves. Stimulation of the first neuron does not cause miosis until the stimulation takes place in the neighborhood of the sinus cavernosus. Stimulation of the second neuron does, however, cause miosis. Reflex contraction of the pupil is due to peripheral irritation of the first neuron, which reacts then on the second and third neuron (the ganglion cells of the ciliary muscle). Reflex mydriasis, on the other hand, from irritation of sensory nerves, is due to inhibition of the first contracting neuron.

The fifth nerve does not, as such, contain any fibres connected with pupillary movement, though on section miosis results. This depends upon an interference with the dilating sympathetic fibres which course in its first division. Therefore, no further pupillary change takes place when the superior cervical ganglion is removed and the third nerve cut.

The movements of the pupil are due, therefore, to the tonic action of the third nerve and the antagonistic action of the sympathetic.

Many other points in connection with the physiology of the pupil are referred to in Angelucci's work. These are, however, of minor importance, or refer to modifications of the experiments which have led to the above conclusions.

SYPHILIS PRECEDING TABES.—In a brief account by Paul Heiberg, entitled "Some Remarks on the Syphilis Preceding Tabes," published in the *Revue Neurologique*, of January 15, 1900, the question is considered whether there is any essential difference between the syphilis preceding a tabes and the syphilis after which no tabes develops. This question is not a new one. It was first brought to the attention of the scientific world by P. Marie, who described the case of two men, both of whom acquired syphilis from the same source at the same time. They both became tabetic, the one twenty-two and the other twenty-three years afterwards. The question then arose: Are there reasons for supposing that there is a form of syphilis, which may be spoken of as a nervous syphilis, that is one which shows an especial tendency to attack nervous tissues?

As a means of studying this question, the syphilitic symptoms of nine cases, which afterwards developed tabes, were studied, and compared with the symptoms of an equal number of syphilitics in whom no tabetic symptoms ever developed.

The symptoms were studied from the standpoints of initial lesion, skin manifestations, throat, length of time of various stages, reaction to mercury, etc. It was found that no differences could be discovered at all. In every case it

was impossible to say that the syphilis producing tabes differed in any essential from an ordinary syphilis.—Sidney I. Schwab, in March *Stylus*.

THREE RECENT NERVOUS SYMPTOMS.—There are three nervous symptoms which have been more or less frequently discussed in neurological literature during the past year or so. Two are in the nature of reflexes, and one is a definite clinical symptom. In the order of their importance they are, first, Kernig's sign in meningitis; second, Babinsky's plantar reflex, or Phenomene des Orteils; third, the imagine reflex in the pupil of the eye.

Kernig's sign is due to the increased rigidity of the muscles so frequently found in meningitis, in both the epidemic and other forms. It consists in an inability of the patient to fully extend the lower leg. The method of obtaining the symptoms is as follows: Place the patient on the edge of the bed, with the leg hanging over the edge and attempt to extend the legs fully. The resistance of the upper leg muscles will be felt and will prevent the patient carrying out this maneuver. The value of this sign is very great, though it is not limited altogether to meningitis; any diseased condition producing rigidity of the muscles in general might very well cause it; hysterical contractures could simulate it very easily. As a diagnostic aid to meningitis, in the presence of other symptoms, it is very useful.

The plantar reflex of Babinsky has only a relative value as yet. The phenomenon is as follows: When the sole of the foot in a normal individual is stimulated, there results a reflex action of the toes. This motion is always a flexion of the toes in the metatarsophalangeal joint. While this reflex may be absent altogether in some people, never in normal individuals is an extension of the toes observed. If the extension movement is found, it points to a lesion of the pyramidal tract or cerebral region, by which this tract is placed out of action. Furthermore, it is asserted that this symptom is a very early one and may be observed before other signs of the disease have appeared.

This symptom has been the subject of much investiga-

tion since its discovery. The general opinion seems to be that it is by no means so constant a symptom as its discoverer would have us believe. Dr. Martin Cohn, in an article in the *Neurologisches Centralblatt* of July, 1899, arrived at the following conclusions: In the majority of individuals, a flexion of the toes follows the stimulation of the sole of the foot. In lesions of the lateral tract of the cord, whether functional or organic in nature, an extension of the toes follows this stimulation in the majority of cases. In no way, however, can this symptom be regarded as pathognomonic of such lesions.

A further utility of this symptom may be found in the fact that Babinsky has never found the extension reflexes in functional diseases. This is denied by Cohn and asserted as true by Schuler. The latter claims that this phenomenon can be of use in differentiating a functional from an organic lesion affecting the pyramidal tract. It certainly seems a valuable addition to the means we already have of differentiating a hysterical hemiplegia from an organic one.

The last of these reflexes has at present only a psychological interest. The imagination reflex of the pupil was studied and observed as long ago as 1855. It consists of the narrowing of the pupil if one imagines a well-lighted place and a widening of the same when a dark place is visualized. In blind individuals the same phenomenon has been observed.—SIDNEY I. SCHWAB, in March *Stylus*.

LOCOMOTOR ATAXIA AND SYPHILIS.—Dr. Albert S. Ashmead, referring to a statement that "Professor Erb, from his researches in one thousand cases, believes that 'tabs' (locomotor ataxia) is almost without exception due to syphilis," asks how Professor Erb would explain the fact that in Japan, where syphilis has scourged the population for thirteen hundred years, locomotor ataxia is unknown. In a venereal clinic of ten thousand cases Dr. Ashmead did not find a single case of locomotor ataxia, nor did he meet a native physician who knew of such a disease as "tabes."

Opposed to this opinion of Professor Erb, says the author, in Germany there stands that of Professor Virchow,

who believes that syphilis has no relation to locomotor ataxia.

Upon this the editor of the Journal comments as follows: "Apropos of the above from Dr. Ashmead, we quote the following abstract from the August number of the Journal of Nervous and Mental Disease, referring to a paper on Tabes Dorsalis and Syphilis, by A. Guttman: The reaction evident of recent years, against the view of the etiological significance of syphilis in tabes is made more pronounced in the statistics of the author. In all, some one hundred and thirty-six cases of tabes were closely studied, and of these, deducting six doubtful cases, 28.6 per cent had had the syphilis, while 71.4 per cent were nonsyphilitic.' The author also considers the evidence derived from the fruitfulness of syphilis medication, and gives his approval of the general methods used to strengthen the body—baths, massage and electricity."—Kansas City *Index Lancet.*

THE ELEVATOR DISEASE—The *London News* is responsible for the following warning, which we believe may have an element of truth: "It looks as though people with weak hearts had, after all, better climb ten flights of stairs than effect the ascent by means of the lift. This convenient institution is becoming ubiquitous. We soar up to the topmost story of the sky-scraping flat, we descend through geological strata to the twopenny tube by its assistance. We thought we were thereby saving our vital energies and lengthening our lives. The doctors seem to hold another opinion. Lift attendants have died sudden deaths; people with weak hearts have noticed ominous sensations when in the elevator. We are told the sudden transition from the heavier air at the foot to the lighter air at the top is extremely trying to the constitution. Even millionaires and bishops and aldermen are now voluntarily tramping upstairs and avoiding the swifter but insidious route. In fact, a new disease has swung into our ken, 'liftman's heart.' We have all of us been risking this malady without knowing it. It is true most people have experienced the singular sensation of internal collapse when the lift floor sinks beneath

the feet, but none of us suspected the results might be so serious. Every new notion for health and comfort seems to bring its particular Nemesis."

—*Boston Medical & Surgical Journal.*

BIAS IN CLINICAL MEDICINE.—Under this heading Dr. Judson S. Bury, of Manchester, according to the *Lancet*, has recently delivered an address before the Medical Society of University College, London. After describing the errors into which a diagnostician is likely to fall, through poor equipment or one-sided training, he concludes as follows: "A patient was not an automatic machine into which a penny could be dropped to pull out a particular disease ready for treatment. On the contrary, the organs by which he moved and lived were composed of living tissues which had a past history and a future development, both of which required consideration before the case could be properly grappled with. The thoughtful qualified man began to find out that he must study other things than mere medicine to acquire that knowledge of humanity so essential to a just appreciation of the many ills to which flesh was heir. The man who got into the habit of regarding every patient as merely a "case" and who ignored the look of feebleness or of distress, or the expression of anguish, and thought only of physical examination, was not well equipped for the diagnosis of obscure disease—he became a machine which was totally unable to unravel the complicated problem of human pathology. Three things were essential for the preventive treatment of the disorder known as bias—namely, care, doubt and truth, and if one thing helped more than another to avoid the pitfalls of bias and of hurried unscientific work, it was that practitioners should put themselves in sympathy with their patients and that they should care for them in the way that Dr. James Jackson, the hero of Oliver Wendell Holmes, cared for his patients. Jackson would have it that to cure a patient was simply to care for him. Such devotion was only to be looked for in the man who gave himself wholly to medicine, the noblest of arts, which the gods of ancient religions did not disdain to practice and to teach.—*Boston Medical & Surgical Journal.*

SKIN CHANGES IN PARALYSIS.—The change is readily noticed in the skin of the forehead. Ask the patient to look upward and then downward for two minutes. In this disease three or four minutes elapse before the wrinkles disappear. Fraenkel, who first called attention to the skin changes, attributes them to a thickening and loss of elasticity. A microscopical examination of a case showed an increase of connective tissue.

—Reuling in *Maryland Medical Journal*, March, 1900.

VISUAL DISTURBANCE AFTER LIGATION OF THE CAROTID.—(*Centralblatt f. d. Med. Wissenschaften*). Ligation of the common carotoid artery was followed by total blindness of the eye of the side upon which the ligature had been placed in two cases observed by Siegrist. In both cases he found an embolus of the central artery of the retina and a slowly progressing thrombosis of the ciliary vessels which supply the arterial wall. The visual disturbances after ligature of the carotid are not caused by the ligation of the vessel, but must be considered as complications which are caused by the pathological conditions for which ligation is made necessary or which may exist when ligation is performed.

ACROMEGALY WITH DIABETES-TUMOR OF THE PITUITARY GLAND.—The patient presented the classical symptoms of acromegaly, and suffered from this disease for six years. He was attacked with intense headache, ocular disturbances, especially in the left eye, and at the same time polydipsia and polyuria. The examination of urine revealed the presence of sugar. The polyuria was to the extent of twenty litres, and the glycosuria to the extent of 1200 grains of sugar in the twenty-four hours. This severe diabetes lasted six and half months, the polyuria and the glycosuria maintaining the same proportions. Meanwhile there occurred crises of diabetic coma, relieved on every occasion by large doses alkalines. The patient died of pneumonia. At the autopsy, in the position usually occupied by the pituitary gland there was found a lobular

tumor, soft, of a reddish-brown color, composed of a number of vegetations forming a hernia through the left cavernous sinus and a portion of the dura mater which covers the sella turcica. Histologically this tumor, in some of its parts, resembles the normal pituitary gland, but in others it presents the appearance and the elements of sarcoma. All the other viscera were increased in weight and size—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.—*Canadian Practitioner & Review.*

THE ETIOLOGY OF ANTERIOR POLIOMYELITIS.—The resemblance in onset to certain of the acute infectious diseases together with the fact that this disease often occurs in groups of two or three cases has for some time past led to the hypothesis of a specific organism as the etiological factor. That it often follows other diseases, most frequently diarrhoea, scarlet fever, or measles, according to Holt, has lead to the belief in the minds of some that the degenerative changes in the anterior horns of the gray matter of the spinal cord are due to the toxins of various diseases. Others have been inclined to regard these changes as due to infectious embolism or thrombosis of the blood vessels. The fact that other diseases of the nervous system, such as meningitis or measles, have been observed in some individuals while others in the same locality were at the same time suffering from anterior poliomyelitis has lead to the hypothesis that these several conditions might be the results of the same cause acting on one or another part of the cerebro-spinal system. In a recent article on the etiology of this disease, Auerbach states that while only eleven cases were seen in the Frankfort Polyclinic from 1892 to 1897, between May and December, 1898, fifteen new cases were admitted. Two occurred on the same street at Frankfort. From the occurrence of cases in which there is extension of the changes to the brain, from the detection by Schultze, of the Weichselbaum-Jäger meningococcus in the fluid removed by lumbar puncture and from the occasional presence of acute meningitis always with the spinal changes, Auerbach is inclined to believe that meningitis,

poliomyelitis, and encephalitis are often due to the varying intensity of action of the same micro-organism.—Editorial by T. in *Pediatrics*, Nov. 15th, 1900.

THE NERVOUS SYMPTOMS AND SEQUELAE OF INFLUENZA.—At the recent meeting of the British Medical Association, held at Ipswich, a very important discussion took place in the Section of Medicine on "Influenza as it Affects the Nervous System."

Dr. Judson S. Bury, of Manchester, opened the discussion. He considers that the nervous disturbances produced by the influenza bacillus and its poisonous products may be broadly separated into two groups. In the first group he places nervous diseases which develop during or shortly after the febrile stage, instancing meningitis and hæmorrhagic encephalitis as the most marked examples of this group. In the second group are included the nervous troubles which are usually met with after the attack has subsided, neurasthenia and multiple neuritis being mentioned as good examples.

It is assumed that the toxins produced by the bacilli are more dilute and less virulent in the second than in the first group, being sometimes sufficiently powerful to initiate degenerative changes in the nerve tissue, whereas in other cases they appear to simply bring about functional disturbances without giving rise to any recognizable anatomical changes.

As a good example of the first group he narrates the particulars of a case of meningo-encephalitis, characterized by headache, pyrexia, and a rapidly developing coma, death occurring a week after the onset of the symptoms. The post-mortem showed a hæmorrhagic meningo-encephalitis chiefly affecting the frontal lobes of the brain. Although the presence of the influenza bacillus was not demonstrated in the brain, still Dr. Bury considers that there was strong presumptive evidence, in the absence of disease elsewhere, that the meningitis was influenzal in its origin.

Meningitis may exist alone, but is probably more frequently attended by inflammatory disease in the brain itself.

Mention is made of the not infrequent condition of a meningitis being set up by a streptococci or staphylococci in the course of an influenza, sometimes the bacillus of the latter disease being present and sometimes absent. The meningitis may be secondary to a purulent otitis set up by influenza, or to a suppurative condition of the nasal cavities. There would appear to be a little doubt that influenza is not an infrequent cause of meningitis and of meningo-encephalitis.

Another cerebral complication of a grave character occurring after influenza is cerebral abscess. Dr. Bury refers to a case occurring in the practice of one of his colleagues, where it was secondary to a collection of pus in the ethmodial cells consequent on an influenza. An abscess was found in the right frontal lobe and a small collection of pus in the upper ethmoidal sinuses on the right side. The great frequency of suppurative middle-ear disease during either the course or after the subsidence of an influenza is an every day experience of the practitioner during an influenza epidemic. It is, therefore, not surprising that cerebral abscess now and then follows. The writer, at the late meeting of the Canadian Medical Association, described a case of abscess of the temporo-sphenoidal lobe consequent on a suppurative otitis media coming on during the course of an attack of an influenza. The first definite cerebral symptoms were observed some three months after the influenzal attack. Reference was made by Dr. Bury to cerebral abscess following influenza when no definite suppurative focus of origin was to be met with at the autopsy.

The post-influenzal nervous disorders are very numerous, nearly all forms of inflammatory and degenerative lesions being met with. Not only do we find lesions in the brain and cord, but also in the cerebral and spinal peripheral nerves.

As regards the cord, almost every variety of myelitis or of degeneration of its various tracts may occur. Among the cerebral sequelæ, we meet with the various functional disturbances, as neurasthenia, hysteria, epilepsy, various forms

of psychosis, etc. Among the inflammatory diseases of the cerebrum, we have the various types of encephalitis as well as general and local meningitis. The peripheral lesions include almost every known form of neuralgia and multiple as well as local neuritis.

Particular attention is called by Dr. Bury to the striking peculiarities of the action of the influenzal poison on the bulbar nuclei. Thus, "While, as in diphtheria, there may be paralysis of accommodation associated with paralysis of the palate, there is a greater variety in influenza than in diphtheria as regards the grouping of muscles affected with paralysis. Thus we meet with isolated paralysis of the superior rectus, or of the internal or external recti, with transitory dilatation of one pupil, with intermittent paralysis of accommodation, with paralysis of both thirds or both fourths, or of both sixths, or of both sevenths, or with paralysis of one side of the tongue." Recovery is looked upon as almost invariable in these, hence the conclusion that the disturbance is of a functional character, or, at least, due to slight changes.

Dr. Bury concluded his careful paper by narrating a number of interesting cases of nervous sequels of influenza. One case in particular is worthy of mention. It was a form of widespread atrophic motor paralysis without any sensory involvement.

The patient, a girl aged fifteen years, presented all the symptoms of an influenza at the onset of her illness, the paralysis soon developing, and in a short time after the most profoundly affected muscles presented the reaction of degeneration. The knee jerks were absent and although a year after there was a complete recovery as far as the loss of motion was concerned, the knee jerks did not return.

Such cases are not uncommon. They may be due either to a poliomyelitis or a peripheral neuritis, or both these conditions may be present. It is likely that in the great majority of cases the paralysis is peripheral and not central in origin. Otherwise recoveries would neither be so frequent nor so complete as they usually are.

Dr. Bury and the speakers who followed him pointed

to the difficulties in recognizing an influenza, and consequently the probability of numerous errors. The diagnosis of influenza is based more on negative than positive facts. The sudden advent of a febrile illness during an influenzal wave is about all the positive evidence usually considered necessary to establish a diagnosis. While our knowledge is so limited we must of necessity be prepared for numerous errors in diagnosis, and consequently in judging of the nature and cause of the complications and sequelæ of febrile diseases.—James Stewart, retrospect in *Montreal Medical Journal*.

NEURO-SURGERY.

RESECTION OF THE CERVICAL SYMPATHETIC.—Jonesco, of Bucharest (International Medical Congress), gave statistics of one hundred and twenty-six such resections, of which ninety-seven were in epilepsy, fifteen in exophthalmic goiter, twelve in glaucoma, one in vertigo due to cerebral anemia and one in essential migraine. The speaker has modified the operatic technic so as to remove the whole cervical chain, and in the last four cases even the first thoracic ganglion, while preserving intact the superficial cervical plexus and the facial nerve. He performs the entire operation at one time. The therapeutic results of the cases detailed were as follows: Of thirteen cases of epilepsy operated on in 1896, five have since died, three were absolutely cured, one improved and four were unsuccessful; of seventeen cases in 1897, six were cured, two improved, five unsuccessful and four disappeared from view; of twenty-seven cases in 1899, two were improved, one unsuccessful and twenty-four disappeared from view; of twenty-one cases in 1900, one was cured, two improved, one unsuccessful and the result of seventeen is not known. Of fifteen cases of Basedow's disease, six were entirely cured; four decidedly improved and three, though cured, have been operated on too short a time to be included. The migraine cases are also too recent to give the results.

Chipault, of Paris, said he had done forty resections of the cervical sympathetic; twenty-three for epilepsy, three of which were cured, the remainder being uncertain; two for exophthalmic goiter; five or six for glaucoma; three for facial neuralgia, all being cured; and one for spasmodic torticollis, which was cured. The intracranial resection according to Krause's method was done twice with success, but the speaker considers it a serious operation which should, therefore, be limited to very special indications.—*Medical News.*

THE TECHNIQUE OF LUMBER PUNCTURE.– The location for entering should fulfill three requirements: (1) Where the needle could fine a ready entrance; (2) the tip should point in such a way as least likely to produce damage; (3) the fluid obtained should be rich in sediment. Any one of the three lower lumbar spaces should be chosen. At the lumbo-sacral space the fluid should be richer in sediment. The sitting position should be assumed, but in the delirious or comatose, there is greater difficulty in operating in the sitting position. The upright position is generally confined to small children. An essential point to remember is that the greatest degree of flexion should be maintained; if the child is sitting it should be bent well forward; the operator should stand on the right side of the patient and bend over the body.

Anesthesia.—General anesthesia is entirely unnecessary in most cases. The skin should be anesthetized with cocaine to permit the needle being introduced without discomfort.

Asepsis.—The same care is demanded here as in the operation of opening any serous cavity.

Landmarks.—It may be well to count the spinous processes from the twelfth dorsal, to which is attached the last rib, downward; or we may take a line across the highest points on the iliac crests; this passes nearly the upper edge of the fourth spine.

NEURO-PHYSIOLOGY.

THE NEURON IN ANATOMY AND PHYSIOLOGY.—M. Verworn. This summary of the facts on which the neuron theory is founded was presented at the Congress of Physicians and Naturalists which met at Aix-la-Chapelle, September 19. Nissl believes that the theory of the neuron as a unit is untenable, but Verworn claims that all the latest researches have merely confirmed this theory. He admits that the neuron is not the same thing everywhere that we see in Golgi's pictures of the cells of the anterior cornua. The neuron is of many varieties and shapes, according to its location and its functions, as Nature never works by an exact pattern. Modern research has led to further and freer evolution of the conception of the neuron as a cellular unit. He reports experiments which show that the metabolism in the central nerve-centers is incomparably more intense than in the peripheral nerves, also that the centers pass through stages of fatigue and exhaustion the same as the muscles; fatigue from autointoxication and exhaustion from using up the reserve supplies, especially of oxygen. His pupil, Baglioni, is soon to publish an account of researches which show that strychnine injected into the spinal cord affects exclusively the sensory elements of the posterior horns, increasing excitability to an enormous degree, while carbolic acid in certain solutions affects merely the motor elements of the anterior horns, increasing their excitability. — *Deutsche Medicinische Wochenschrift* (Leipsic), September 22.

CLINICAL PSYCHIATRY.

ACUTE DELIRIOUS MANIA.—John Turner believes that all forms of acute delirious mania are of toxic origin, some being caused by the introduction of a poison from without, others by the absorption of septic material, while a third class is due to autointoxication. As regards the action of a possible poison on the nerve cell and its functions the

subject is too speculative for any advantage to be derived from discussing it. In cases with high delirium and a rapidly fatal termination there is generally a condition present in which all the ganglion cells are profoundly altered, and probably the inspection of a section in such cases would furnish a tolerably accurate diagnosis of the mental state preceding death.—*Medical Report* 4th, from *British Medical Journal*, September 22, 1900.

PARETIC DEMENTIA.—According to Dr. C. G. Chaddock, (*Medical Review*, Dec. 8th, 1900,) this disease is uniformly fatal. It varies in the rapidity of its course, but in every case the end is an less certain. There are occasional remissions, but they never last longer than a few months. There is a great liability to apoplectiform and epileptiform attacks, and the patient grows progressively weaker mentally and physically; if death has not occurred before, he becomes helpless and bedridden. The end is usually brought about by an apoplectiform or epileptiform attack, or a continued series of them, which ends in exhaustion. Some years back it was pointed out in the ALIENIST AND NEUROLOGIST that there was a distinction between paretic dementia attacking one already disordered by heredity or disease. The normal organism furnishes the typical paretic dementia. The organism in which a neurosis has been set up by phthisis, gout, rheumatism, rheumatism, lead or brass poisoning, vaccination, heredity, ataxia or other cause furnishes a typical case of paretic dementia presenting many features in common. The rheumatic and gouty type have prolonged remissions which may be as Spitzka, Bevan, and Kiernan have shown (ALIENIST AND NEUROLOGIST, 1900), pass into recoveries. In the other types there is a long-lasting, querulent, paranoid condition, in which the patient while retaining to a limited degree his former exalted opinion of himself, counsels this under resentment evinced in law-suits or fault-finding. The exalted opinion is often the result of a delusion of memory. The same is true of the depressional delusions, which are sometimes so related as to affect business transactions.

THE

ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, JANUARY, 1901. No. 1.

Subscription $5.00 per Annum in Advance. $1.25 Single Copy.

CHAS. H. HUGHES, M. D., Editor.
Editorial Rooms, 3857 Olive Street.

HENRY L. HUGHES, Manager and Publisher.
Business Office, 3857 Olive Street.

Subscribers failing to receive the Journal by the 20th of the month of issue will please notify us promptly.

EDITORIAL.

[*All Unsigned Editorials are written by the Editor.*]

New Year's Greeting.— Twenty-one years have passed since the ALIENIST AND NEUROLOGIST first entered the field of Scientific Medical Journalism with intent to popularize for the general practitioner and savant, as well as to epitomize, and with plainness and brevity, present the leading facts and discoveries in Neurology, Psychiatry and Mental Neurologic Forensic Medicine, so that the student on these lines of the world's work and progress might economize time while gleaning the essential knowledge.

The success of the ALIENIST AND NEUROLOGIST in securing professional and financial support from the interests to which it has steadily catered has been exceedingly satisfactory to its founders and collaborators.

Having reached full maturity of years and experience, it confidently hopes to better subserve its many patrons in the years before it even than in the years that are passed so profitably in its career.

With hearty thanks to all who have helped to make it the foremost periodical of its kind in the world, and cordial greetings to its friends everywhere, it hopefully enters upon the duties of the new year of the new century with inspiration and courage born of its useful and successful past.

The Insane Epoch and the Last Lucid Interval of Oscar Wilde.—Our esteemed contemporary, the *Literary Digest*, summarizes some of the press opinions on this talented but morbidly erratic child of genius and vicious neuropathic heritage, and refers to some of his literary work and two of the best poems of his better days, written before his latent inherent tendency to decadence had become active and after the temporary reaction and recuperation in brain and consequent moral tone following his sequestration and enforced rest.

Like many other persons of erotopathic perversion, intense religious, emotional life, not usually within the pale of the normal, either precedes or alternates in mental dominance, and thus Oscar Wilde enters the church and writes the Ballad of Reading Goal, his last poem, which will be read after the immoral episode of this unfortunate, organically degenerate child of erratic genius shall have been forgotten.

An over-educated, overworked, ambitious, flattered young man of intellectual aptitude and unstable, neurotic inheritance weakens and breaks in brain under the strain and goes entirely to pieces in paths of folly.

The broken brain and latent degeneracy of psychic neuron is revealed in morbid erotic perversion. The genesic sense morbidly misdirected and deprived of normal inhibition goes wrong and the robust world's anathemas are heaped upon the doomed mental cripple. Had this unfortunate psychopath taken to kleptomania as others have done or a purer form of erotomania as Kelvin and Abelarde, or pyromania and destroyed his house instead of his character, or dipsomania and destroyed his character in another way, there would have been found enough intelligence in

the non-neurologic and non-psychologic world to have considered this unfortunate man's entire life and ante-natal history, and pitied its fatal ending, and he might have fortunately found a fortuitous refuge, or mayhap a cure, in a sanitarium for the brain-broken and the mentally-maimed. Society with its large allotment of neuropaths and psychopaths mildly waltzing near the crater's edge of mental alienation, only for the time being an apparently extinct volcano, and chasing one psychopathic fad after another; it and his fatal hereditary endowment are responsible for this unfortunate psychopath's sad and morbidly disastrous career.

Where now are the sunflower and the calla lily, emblems of perfect propriety of color and the other vagaries of æstheticism which wildly enraptured the crank's followers, who socially apotheosized him, and astonished the level-headed onlookers of the Wilde pageantry of his singular career two decades agone? Gone into oblivious history, like the thousand and one fads psychopathically inspired, which, before the advent of Wilde, had come and gone their abnormal way in the world's record.

Poor, unfortunate, pitiable Wilde. Through the neuropathic obscuration of your closing days you seemed to have discerned in part your sad undoing.

Poor victim of a vicious heredity. Your faith in the Lord Christ is not misplaced. He will do what man has not done. "He will consider your frame" and "remember that you are dust," neuropathic dust, predestined under adverse mental environment, to wear and break, what steadier brains, more stably endowed in hereditary nerve element, would have built for enduring fame a beautiful monument of high ideals. But the psychopathic rot of a wrong heredity has ruined all. The wide, wide world does not see that neural strands, paternally and maternally strained to weakness, have broken in you, but the alienist and neurologist discerns the fatal fact.

Public Neglect of American Medical Immortals is strikingly illustrated by the oblivion assigned them in Miss Gould's Temple of Fame.

The name of Benjamin Rush, foremost discoverer in psychiatry and who also, as Surgeon-General of our patriot army, substituted the flowering Mayapple of our fields and forests for mercury at a critical time in American history and thereby ameliorated the struggle for American independence, in addition to his fame as a deviser and signer of the Declaration and patriot member of the Continental Congress, and Horace Wells, the immortal discoverer of anæsthesia, have been assigned no place among the worthies of our new pantheon. Nor has Ephriam McDowell, whose successful pioneer penetration of the human abdomen blazed a pathway to fame for home and foreign surgeons and robbed unnumbered graves.

And the bust of Marion-Sims, likewise, whose perineal skill made the domestic hearths of royalty and poverty alike places of painless happiness, where painful misery was before, will be a stranger there.

The rescuers of the human race from maladies and miseries have not an equal place with those who invent sewing machines or arms of destruction.

The diplomat, the framer of fine phrases, the pedagogue, the preacher and the statesman, the merchant and the mechanic are there but the best friend of mankind in its hour of distress are not deemed worthy a place among these lesser beneficiaries of the people. How passing strange! How strangely ungrateful, forgetful and inconsistent!

Insanity in Actors.—Nearly two years ago the ALIENIST AND NEUROLOGIST remarked that in modern life there are many willing spirits among ambitious mental toilers who, seeking fame and realizing that labor only brings success, are unremitting workers, still Nature succumbs and the struggling brain breaks down in insanity under great pressure. The individual is fortunate if he have no more vicious inherent aptitude than to take on nervous depression, or neurasthenia, under pressure, and if he have added none of the usual vices of public life, of alcoholic stimulants, late suppers, to hasten collapse of

nervous energy under high professional pressure. For to be dowered with a bad brain heritage—heritage of tendency to instability—and to add to that vicious brain-break indulgences, is to doom one's intellect to destruction. Recuperation is often possible after the first breakdown, if vice have not added to the breaking pressure and inherent weakness. Poor McCullough and J. K. Emmett in the dramatic profession are conspicuous and warning illustrations, while bright, brilliant, beautiful little Victoria Bateman is an example of pure and simple brain-break under crushing overwork and brain-strain that ought to have been spared her. The sordid avarice of the box office killed her; innocent, perhaps, of the certainty of collapse, but all the same, it killed her—

> "For evil is wrought by want of thought,
> As well as want of heart."

But the box office is not the only cause of actors' and actresses' breakdown. They drop out under the dissipating pace that kills. Long hours of social dissipation after the play, stimulant drug habit from self-medication to postpone the headache and tired feeling and overcome the exhaustion temporarily of their strained lives. In this category fell Courtney Barnes, whose last act, like McCullough's, was in an asylum for the insane, and hosts of others equally unfortunate, who lived if they did not love, not wisely but too fast.

The willing horse was worked to death, or, what is near the same, to perilous brain-break, with a possibility of mental aberration and probable finale of dementia or total obliteration of mind. These opinions seem to be emphasized by the recent death of Hoyt, the playwright, from paretic dementia. In his case, however, facts compel a critical examination from another standpoint. Over three decades ago Kjiellberg claimed (Hospitals Tidende, 1868) that paretic dementia never occurred in a subject free from inherited or acquired syphilis. Mendel later showed that syphilis in the parent (Archiv. f. Psychiatrie B. II) may produce a predisposition to insanity in the offspring, such insanity occurring long after the usual syphilitic congenital

manifestations attain their full development. The father of Hoyt had locomotor ataxia for thirty years, the disease having begun before the birth of Hoyt, the playwright. Locomotor ataxia is very frequently a parasyphilosis. Indeed, the vast majority of cases occur in syphilitics. Paretic dementia in the majority of cases is also a parasyphilosis. It would seem probable, therefore, that the predisposing factor in Hoyt was a congenital parasyphilosis. Cases of this kind are much more frequent than is usually supposed. In a family coming under Dr. Moyer's observation a woman had had, by a first husband, a perfectly healthy child. She married a second time a man who died suddenly. By him she had four children, three of whom (two boys and one girl) suffered from juvenile paretic dementia. In this case infection of the mother had clearly resulted in a congenital parasyphilosis in the child which had produced during puberty stress breakdown into paretic dementia. It was long ago noticed that psychoses and neuroses in actors were principally paretic dementia and locomotor ataxia, as well as progressive muscular atrophy. Actors are not only exposed to the mental overstrain, but also are exposed to both sexual and innocent syphilis in the course of their avocation. K.

The Eye-Strain Headache. Fad and Fact.—O. Landman in *Medical Record* recommends the instillation of atropine in the eye for the diagnosis of certain forms of persistent headache as valuable for headaches associated with eye-strain. The pains, he says, are usually, when due to ocular defects, superciliary, occipital, occipito-frontal, vertex and temporal. One type of diagnostic headache of eye-strain he locates on the top of the head and gives it an area of about the size of a silver dollar; it is circumscribed and the scalp is tender. He uses a solution of one-fourth of a grain of atropine sulphate dissolved in two drams of water. Three drops of this are instilled three times a day. If the headache disappears under this mode of testing, it is probably due to eye-strain and is best relieved by glasses.

Our ophthalmologic friends are bent on taking the whole field of neurology and general medicine. If there is any one type of headache that is characteristic of anaemic neurasthenia it is the circumscribed vertex cephalalgia above described, and for any kind of pain few remedies are better than hypodermic atropine, and ophthalmologic instillations ought to be equally effective. Atropine was one of Austie's chief and favorite remedies.

To make the relief of headache superciliary, occipital, occipito-frontal, vertex or temporal by atropine diagnostic of eye-strain and calling for glasses is an exceedingly special specializing of diagnosis. Why not try the glasses first? Most oculists do this. It is of the hop, skip and jump kind of conclusion. Some ophthalmologists always "have their nerve with them," in their thoughts the ophthalmic nerve.

We hope the ophthalmologists of the above type will call a timely halt and leave a little something to neurology.

The Influence of Morphine on Gastric Secretion.—F. Riegel in *Leitschrift fur Klinische Medicin*, discussing this subject, says: In view of extensive experiments on men and animals, that the universally accepted belief that the secretion of gastric juice is inhibited by the administration of morphine rests on errors of observation, and that the therapeutic use of this agent in conditions in which the object is to diminish the secretory activity of the stomach is ill-advised. On the contrary, morphine given during fasting or with the food causes an increase of gastric juice, though there is a considerable latent period before this result is manifest.

His conclusions apply to recent cases, not to chronic habitues of the drug. A fuller abstract may be seen in *Medical Record*, October 6, 1900.

Our Genial Friend Dr. I. N. Love, the talented editor and proprietor of the *St. Louis and New York Medical Mirror* and member of the faculty of the New York Post-Graduate Medical School and Hospital, was the recipient of

well-deserved testimonials of appreciation from the Mississippi Valley Medical Association at its late meeting in North Carolina, in addition to the honor of delivering the annual oration.

Psychic Transitions in Play Presentations.—It is an interesting matter to know that the "Punch and Judy" show, so popular at English and American children's Christmas and Easter entertainments, as well as at carnivals, circuses and fairs in Italy, France, England and America, is only a degraded travesty and last survival of one of the old "Mystery" or "Sacred Plays," of which the Bavarians retain one in the now world-renowned "Passion Play" at Ober-Ammergau. The name "Punch and Judy," is from the two chief characters, "Pontius" and "Judas." "Punch" as a Roman, speaks with a foreign accent, has a Roman nose, and on his back a hump. This is in consequence of the tradition that after the condemnation "Pontius was haunted by the idea that "the evil one" sat upon his back. In his exile he was always followed by a black dog. Hence the introduction of "Tobey" so named from the dog "Tobias" in the "Apocrypha." "Judas" has been transformed into a woman because she was dressed in a flowing robe after the fashion of the East, The child was our Lord, chucked about from "Pontius" to "Herod." The play of "Pontius" was popular in the middle ages and Chaucer alluded to it. This, and all "The Mystery" plays, were performed in the streets. The players had carts for their properties, upon which they placed boards for a stage and erected wings and a top—a hanging—covering up the wagon. During the performance the players who were not "on" mixed with the crowd and collected money. The comic man or "Jack Pudding" (as he was termed) always a chartered libertine, sold quack remedies, drew teeth and bled patients. From his appearing on the stage he gained the name of "Mountebank". An engraving of the Coventry and Chester plays is to be found in "Houe" and in the "Pictorial History of England," where the *ante pendium*, or hanging over the wheels, is decorated with the symbols of "The Passion,"

indicating that "Pontius and Judas" was the play depicted. The whole thing is very like the present "stage" of "Punch" only with altered proportions. There is a little ladder at the end for the actors to ascend by, and the call boy to summon each, as wanted. During the Commonwealth the laws were so severe against actors, as may be seen in "Scobels' acts" that plays ceased almost and the present "Punch" arose as a fantoccina to answer a demand for amusement. Of course it is only a degraded travesty of the original play. "Punch" as "Polichinello" is a favorite in Italy and France.

Beautiful Oak Grove.—A series of handsome photos of this charming sanitarium at Flint, Michigan have come into our possession for which we return thanks. We have shown them with pride and they have been inspected with pleasure by numbers of people.

An American Physician in the English House of Lords was the late Dr. Fairfax of Maryland," says the *Medical Standard* for November. Dr. Fairfax was the eleventh Baron Fairfax of Cameron in the peerage of Scotland. The only title by which he cared to be known was that of Doctor, which he held as a graduate in medicine of the University of Pennsylvania.

The Missing Sponge.—STRING YOUR COTTON AND YOUR TOOLS.—Our excellent contemporary the *Southern California Practitioner*, has an editorial on this subject, referring to one hundred and eight cases of sponges, gauses, napkins, instruments, irrigation tubes, seal rings, etc., among them a fatal case in the practice of Dr. Skene. There is a psychical lesson in all this, a lesson of avoidance. Avoid haste in operating save when haste is imperative, avoid operating when the brain is fagged, at the close of the day or after a weary waking night. Be as sure of the tone of your brain, brother surgeons, as of the quality and condition of your instruments and of the aseptic environment of your patient. Of what use are sanitary precautions when per-

sonal psychical precautions are neglected. The horrible record is worth reading for instruction. It is reproduced from Neugebauer's Brief Report of One Hundred and Eight Cases in which Foreign Bodies were Left in the Abdominal Cavity After Operating" in *Monatschrift fuer Gebuntshulfe und Gynekologie*, April, 1900.

Read this record, brother surgeon, and henceforth deal more gently with the neurologists and when disposed to twit them for their failures to cure remember they do not often kill.

Tea Neurasthenia.—A recent suicide of a tea taster in Chicago has called attention to the toxic influence of tea. Professional tea-tasters, as Talbot remarks (Degeneracy: Its Signs, Causes and Results) have long been known to suffer from nervous symptoms. Very early in the practice of their occupation the head pressure symptoms of neurasthenia occur. Tremor also occurs early. While changes in the optic nerve have not been demonstrated beyond a doubt, still eye disorders have been observed in the pauper tea drinkers of the United States and in the tea-tasters of Russia thus indicating that changes similar to those produced by tobacco and alcohol are likely to occur in the optic nerve from tea. Bullard has found that tea has a cumulative effect. In his experience toxic effects are not produced by less than five cups daily. The symptoms manifested are those of nervous excitement resembling hysteria, at times almost amounting to fury, nervous dyspepsia, rapid and irregular heart action, neuralgia of the heart, helmet-like sensation on the head and tenderness along the spine. James Woods of Brooklyn found that ten per cent of those under treatment at the city hospital exhibited similar symptoms. Of these sixty-nine per cent were females. Every symptom ascribed by Bullard to tea was found by Wood in his cases. Women manifested irregularities in menstruation of neurasthenic or hysteric type. These symptoms were produced by one-half of the quantity of tea charged with them by Bullard. The *Lancet* several years ago, discussing tea-tippling took the position that in no small degree ner-

vous symptoms occurring in children during infancy were due to the practice of the mothers, both of the working and society class indulging in the excessive use of tea, excess being judged by its effects on the individual and not by the amount taken. Convulsions and resultant infantile paralysis were frequently noticed among the children of these tea tipplers. Observation among the factory population and the workers in the clothing sweat shops show that tea neurasthenia presenting all the ordinary symptoms of nervous exhaustion is especially common among these. It is evident hence that tea produces a grave form of neurasthenia readily transmissible to descendants. In addition to its effects directly upon the nervous system tea tends to check both stomach and bowel digestion and thus increase the auto-intoxication which is so prominent a cause, consequence and aggravation of these nervous conditions.—J.

Marriage and Suicide.—One of the Chicago newspapers claims that marriage has a determining influence in the production of suicide. Throwing aside the influence of race and periods of stress, the facts as to the relation between suicide and marriage remain as they were laid down by Morselli ("Suicide") about two decades ago. The study of the social status ought to follow that of sex and age, with which it is intimately connected. The usual error has been to infer the more or less favorable influence of celibacy and marriage from the absolute numbers of suicides, without taking into account the numerical difference in population between unmarried and those who are or have been in the conjugal state. It is necessary to keep count of the great preponderance of the single under twenty years of age, to attain an exact proportional comparison. Among the English scarcely 36 per 1000 men are married before their twentieth year, while among women at that age already 151 per 1000 are married. The advice of Oettingen to eliminate all the individuals under twenty years of age should not be followed, since by so doing almost two-tenths of the married would be excluded, at any rate where there

is a tendency to early marriage, as in England. It is better to limit the exclusion to all children and young people under fifteen years of age, and then to proceed to the proportional calculation per million of the remaining individuals. But statistics containing information on this important element of social life are most complete in this direction in Italy.

These show that, as at all times it has been admitted, celibacy has a disadvantageous influence in comparison with marriage. Marriage has the most beneficial influence on man's vitality, and that which happens to mortality in general is repeated as to suicide except that the effects, as might naturally be foreseen, are still sharper particularly in widowhood.

. But the most marked divergence from the normal is the state of widowhood; in all countries the proportional relations between the widows and widowers exceed that between the spinster and the bachelors, between the married women and married men, so that evidently widowhood brings the woman nearer to man than any social condition. A fact which might be conjectured even before it was confirmed by statistics, although, according to researches of Bertillon, the mortality of widowers everywhere, but especially in France and Belgium, surpasses that of widows. It is a fact that wars making great number of widows always raise the annual number of their suicides. G.

Effect of Alcohol on the Brain--Mr. Victor Horsley, F. R. S., London, Surgeon to University College Hospital, in a recent lecture "demonstrated by means of lantern slides the disappearance under the influence of alcohol of the granular masses in the Purkinje nerve corpuscles, and how the protoplasm of the body of the corpuscle lost its characteristic structure and and the nucleus became altered in shape. The toxic influence of chronic alcoholism on the pyramidal cells was also demonstrated in a similar manner, and the effect of alcoholic poisoning on the normal pigmentation in nerve cells was illustrated by a slide representing degenerated nerve cells, from the *Archives of*

Neurology, edited by Dr. Mott, and published under the auspices of the London County Council. Mr. Horsley concluded his lecture by stating that from a scientific standpoint the contention so often put before them that small doses of alcohol, such as people took at meals, had practically no deleterious effect could not be maintained." Such object lessons constitute the right sort of temperance lectures. Some day the scientific world, as well as the world in general will awaken to the fateful fact that the medicinal and other virtues of alcohol have been rated without reason, woe rather than weal of the world walks in its wake.

Corning's Subarachnoid Cocaine Anæsthesia.—Dr. J. Leonard Corning the original American discoverer and devisor of this method has written a timely letter to the Editor of the *Medical Record* partly claiming the laurels justly due him for this method of spinal anæsthesia lately revised by Bier and Tuffier and others abroad as follows. Addressing Dr. Wm. J. Robinson to same journal Nov. 10th:

"It is the method of subarachnoid anæsthesia that promises to work a revolution in general surgery and obstetrics, and the credit of the method undoubtedly belongs to two men—to Prof. August Bier and to Professor Tuffier: to the first as the discoverer of the method, and to the second as its popularizer."

Had the author looked into the subject more carefully, he would have found that in my book on "Pain" (J. B. Lippincott Company, Philadelphia, 1894) I have, under the head of "Irrigation of the Cauda Equina with Medicinal Fluids" (pp. 247-254), devoted six pages to the consideration of subarachnoid anæsthesia, which I devised and executed in 1888, and published five years before either Bier or Tuffier entered the field. Bier's paper was published in 1899 and Tuffier's in 1899 and 1900.

Be patient Dr. Corning! Honor will come home to you where it belongs as honor of priority has finally come to others. The original discoverer of general anæsthesia (Wells) was served the same way, so was McDowell, so was Rush and some others. There are a kind of medical men in

America who think no good can come out of American Nazareth and accept nothing not of foreign extraction or foreign endorsement. Such men are about to reach the conclusion that quinine is a prophylactic against malaria now that Koch says he has discovered a preventive remedy for malarial disease in which quinine is the chief ingredient. This foreign endorsement by the discoveries of the comma baccilus will put a period to all controversy now and confirm the skeptical in the prophylactic power of quinine, salicin and the cinchona bark derivatives. The combined testimony, to this effect, of the medical men of the Mississippi Valley and Gulf States, the surgeons of the civil war and planters of the South will soon pass as of some value. Koch in Germany has made the discovery! Even the testimonies of our British army medical brethren in Africa and the English tropical possessions will now be accepted for Koch has made the discovery! Again.

Corning's Cord Cocainization has come to the front and now Tuffier of Paris approves and uses it. Tuffier's contribution may be found in *La Semaine Medicale* for May, 1900, and an excellent article on this subject also appears in the *Medical Fortnightly* for November, 1900, by Dr. Carl Black, of Jacksonville, Ills.

Third Pan-American Medical Congress. Officers of Section Neurology and Jurisprudences on Mental and Nervous Diseases. — President, Dr. Gustavo Lopez; secretaries, Dr. Jose A. Malverti, Dr. Aristides Mestro, Dr. Rafael Perez Vento, Dr. Chas. H. Hughes, 3857 Olive, St., St. Louis, Mo.

Medical Jurisprudence.—President, Dr. Jos. M. Cespedes; secretaries, Dr. Juan Gomez de la Naza, Dr. Ernesto Sarra, Dr. Alvarez Ortiz. Meet at Havana, Feb. 4-8.

Effect of Intense Electric Light Glare on the Retina and Optic Nerve.—A peculiar accident occurred at Middleport about Oct. 6, (recorded in the *Scientific American*, Oct. 27th, 1900.). The big iron safe in the

Middleport shoe factory refused to open, and the bookkeeper, Louis Jaquith, and Engineer Walter H. Rice conceived the idea that they could burn out the combination by use of carbon and electric wire. It took several hours to accomplish their purpose. They finally succeeded, but not until they had stood for several hours in the glare of the electric light, taking turns at holding the wire and carbon. When the work was over both complained of a dizziness and pain in the head, which increased as the hours passed, and in a short time both went suddenly blind at about the same time. All efforts to restore their sight have been unavailing, for while the eyeballs appear all right the sight is destroyed. These cases should not be lost sight of but followed to ascertain how permanent the damage may be.

The Prussian Blue Treatment of Epilepsia.— When the editor-in-chief of this journal was a first year medical student he became familiar with this and the nitrate of silver treatment for epilepsia. Prof. McGugin, at that time dean of a medical school at Keokuk, Iowa, employed the following formula for epilepsia:

Ferri Cyanuret,	gr. xx
Pulv. Valerian,	" xx

Ft. Mass. Secund. Art. Ft. Cap. No. xx.

S. One three times a day after meals.

This preparation of iron as well as valerian were in use in that day. Old U. S. dispensatories mention it.

Subsequently the editor modified the formula of Dr. McGugin to read as follows:

Ferri Cyanuret (Tilden's),	gr. xxx
Ex. Gentian,	" v
Ex. Valerian,	" v
Pepsin Scale,	" xx
Ex. Pancreatis (Fairchild's),	" xx
Ferri-pyrophos,	" xx

Aq. Menth. pp. q. s. ft. Mass Ft. Cap. No. xx.

Sig: One or two early every morning and at night and after the noon meal daily.

This is a valuable combination for regular use with or

without the bromide treatment, whose properties are apparent at a glance to the neurologist in the management of epilepsia. The cyanuret of iron may be largely increased.

Latterly I have substituted half a grain of Gardner's hypoquinidol for the ferri-pyrophos and under certain circumstances (as anaemic cachexia) have added one twenty-fourth of a grain of chloride of gold and sodium and made the whole into a mass with arsenaura, giving a course such as twenty-four capsules would make, and repeating as might be indicated.

The Journal of Mental Pathology makes its debut January, 1901, to continue monthly thereafter. It is edited by Louise G. Robinovitch, M. D., and published by the State Publishing Company, 32 Broadway, New York. It will publish researches on mental clinic, cerebral pathology, neurology in its relation to mental clinic, alcoholism, morphinism and the allied diseases, criminology, anthropology and other researches in the auxilliary branches of the sciences relating to or bearing on the study of the mind; from time to time space will be devoted to medico-legal analyses and a column will be reserved for bibliography. News of the asylums in the United States and abroad and personal intelligence will also receive attention. It will be ably managed by a distinguished editorial board and corps of contributors.

The editor is an indefatigable and well-known worker in the field chosen for the new journal. Her acquaintance is large among home and European psychiatric scientists, who will take an active interest in promoting the success of the new enterprise, which the versatile genius of the able editor will appreciate and utilize.

We wish prosperity and long life to both the periodical and its charming and accomplished proprietor and editor.

Dr. R. W. Gardner, of single syrup hypophosphite fame, has written a commendable article, of interest to all physicians, on the subject of designating preferred manufacturers of prescription ingredients. Reliable caterers to

the profession are entitled to be preferentially designated in prescriptions, that the standard of purity and strength, so essential to safe and successful prescribing, may be secured with certainty for the welfare of our patients. When pharmacists are thus forced to give us the best medicines we will do better in practice and the 'just as good' abuse will cease.

Among the Best Contributions to the December number of the Bulletin of the Johns Hopkins Hospital is an article on "Theodore Billroth as a Musical and Surgical Philosopher." We wish to compliment Dr. John C. Hemmeter upon the excellent manner and skill with which he treats and presents this interesting subject.

"Microscopical Reproductions of the Blood and Bacteria," sent out by Reed & Carnrick, is a work of merit, worthy of the consideration of every physician.

ANNOUNCEMENT.

THE ALIENIST AND NEUROLOGIST, edited by Drs. C. H. and Marc Ray Hughes and an associate corps of collaborators, will post you in the briefest way in Insanity and Neurology in general, as well as special practice and in their medico-legal aspects.

Neurology in general medicine is a special feature of the ALIENIST AND NEUROLOGIST, and its Selection and Editorial Departments will inform you thoroughly in all diseases where the nervous system is involved or ought to be treated in practice, and give you the latest advances in the most important field of medical discovery and practice. *No one whose aim is to be a thoroughly enlightened practitioner of Medicine, or competent when testifying in Court on Neurology or Neural aspects of Medical Practice, can afford to do without* THE ALIENIST AND NEUROLOGIST.

Terms, $5 per year in advance.

Address HENRY L. HUGHES,
3857 Olive Street, St. Louis, Mo.

REVIEWS, BOOK NOTICES, ETC.

DISEASES OF THE NERVOUS SYSTEM. By H. Oppenheim of Berlin. This interesting book by the distinguished Professor at the University of Berlin, appropriately dedicated by its eminent author to the memory of that Prince of German Neurologists, Carl Westphal, comes to us in authorized translation by Edward E. Mayer of Pittsburg, Pa. and from the well-known publishing house of J. B. Lippincott Co., Philadelphia and London.

The translator has done his part of the work well. The name of the well-known author needs no further commendation to American neurologists than the mention of his distinguished name and we have so often hitherto commended the excellent work of the Lippincott Company as to make further commendation from us at this time superfluous.

The book is designed as a text book for students and practitioners will well fulfill the author's design. It contains two hundred and ninety-three illustrations. We are pained to note, however, the absence of due recognition of American writers in the book. For instance the name of Hammond does not appear in connection with athetosis which he named and was the first to describe.

The author adopts the Charcot narrow view of post hæmiplegic chorea as the basis of this condition and ignores the many cases, including our own recorded in this country, some of them bilateral, reported in the United States in support and satisfactory confirmation of Hammond's discovery. This ignoring of American contributions to the literature of neurology and psychiatry is somewhat too common abroad.

JAHRESBERICHT uber die Leistungen und Fortschritte auf

dern Gebiste der Neurologie und Psychiatrie. Published by S. Karger, Karlstrasse 15, Berlin. This great resume of the world's literature in two great departments of medical research and thought comes annually to our sanctum laden with the skillfully epitomized work of a thousand of the world's best workers in the ranks of medical study. Graced and embellished by the industrious cullings of eminent leaders in the literature of German and European medicine. The volume should be in the library of every savant and student.

Last year the page fronting the title page was decorated with the handsome and intellectual face of our brilliant and learned friend, Mendel, the distinguished neurologist of Berlin, a fitting frontispiece to this important work of which he is an eminent collaborator.

This great book of reference should be in all the great libraries of the world and especially in the Congressional Library at Washington. It is a great annual Neuriatric and Psychiatric Index Medicus.

PROGRESSIVE MEDICINE, Vol. IV., December, 1900, comes to us with the following table of contents: "Diseases of the Digestive Tract and Allied Organs, The Liver, Pancreas and Peritoneum," by Max Einhorn, M. D., "Genito-Urinary Diseases and Syphilis," by William T. Belfield, M. D., "Fractures, Dislocations, Amputations, Surgery of the Extremities and Orthopedics," by Joseph C. Bloodgood, M. D., "Diseases of the Kidneys," by John Rose Bradford, M.D., F.R.C.P., "Physiology," by Albert P. Brubaker, M.D., "Hygiene" By Henry B. Baker, M.D., "Practical Therapeutic Referendum" By E. Q. Thornton, M.D.

"Progressive Medicine" was awarded grand prize at the Paris Exposition in 1900.

THE DIGESTIVE POWER OF PEPSIN.—By Benjamin T. Fairchild, New York. Reprinted from the *Western Druggist*, Chicago. This is a clear and convincing presentation of the subject by one who knows whereof he speaks and as a member of a firm that has put the best

pepsin and pancreatin products and preparations on the markets of the world. This is too late a day in progress of the chemistry of digestion for Mr. Perry, or any one else to maintain or assert that dilate hydrochloric acid is the digestor *sine qua non* of the gastric juice. Dilute Muriatic acid has its place and so has pepsin in the stomach. Read the paper and see the proof.

Fairchild Brothers & Foster have done an inestimable service to Medicine in popularizing, practicalizing and cheapening good American pepsin, and as capable pharmaceutical caterers as Mr. Benjamin Fairchild is a valliant defender of the value and utility of Pepsin. Stand back Mr. Perry.

THE MARYLAND HOSPITAL NEWS, Christmas Number is an interesting one. The story of the Darlington Divorce Case is a charming Christmas story illustrating the Shakesperean motto "All's Well that Ends Well." "Midsummer Night's Dream" is another attractive story. The editorial selections and brevities are all meritorious. The home comfort and happiness of the hospital are reflected within this monthly paper. The whole make up of this handsome periodical is as beautiful in design as a daisy.

RESULTS OF FIVE YEARS' EXPERIENCE WITH CO-OPERATION BETWEEN STATE HOSPITALS FOR THE INSANE. —May it be Profitably Extended to other Charitable Institutions? P. M. Wise, M. D. A good paper which may be read with profit by all medical officers of institutions and if read will bring conviction in the affirmation of the able author's interrogation: "Co-operation between State Hospitals: May it be Profitably Extended to other Charitable Institutions?

Retinitis Albuminurica with Report of Cases. By Francis W. Alter, M. D., Toledo, Ohio, Late Resident Surgeon New Amsterdam Eye and Ear Hospital, New York City; Member of the Lucas County Medical Society; The American Medical; Northwestern Ohio; and Toledo Medical Associations.

Enzymes in the Treatment of Nasal Polypi, Angioma of the Nose, and Chronic Otitis. By Talbot R. Chambers, M. D., Surgeon in Charge of the Eye, Ear and Throat Departments of the City and Christ's Hospitals; Consulting Ophthalmologist, Orange Memorial Hospital, Jersey City, N.J.

Value of Prostatic Examination. By J. Leland Boogher, B.S., M.D., Genito-Urinary Surgeon Barnes Medical College, St. Louis, Mo.

Railway Surgery in America. By Clark Bell, Esq., LL.D., President International Medico-Legal Congress of New York, 1889; President Medico-Legal Society of New York; Delegate from the Government of the United States to the International Medical Congress of Paris, 1900.

Aseptic Minor Gynecology, with demonstrations. By Augustin H. Goelet, M. D., Professor of Gynecology in New York School of Clinical Medicine; Consulting Professor of Gynecological Electro-Therapeutics, International Correspondence Schools, Scranton, Pa., etc.

Locomotor Ataxia. By Hugh T. Patrick, M.D., Professor of Neurology in the Chicago Policlinic; Associate Professor of Nervous Diseases in the Northwestern University Medical School: Neurologist to the German and Maurice Porter Hospitals, etc.

Maladministration of Public Medical Affairs in the State of Texas. By H. A. West, M. D., Secretary of the Texas State Medical Association, Galveston, Texas.

Some Thoughts Relative to the Etiology of Degeneration. By Chas. E. Woodruff, M. D., U. S. Army, Fort Riley, Kansas.

Report of the Surgeon-General, U. S. Navy, Chief of the Bureau of Medicine and Surgery, to the Secretary of the Navy, 1900.

Report of the Committee on a State Board of Health, Texas State Medical Association, Waco, Texas, April 26, 1900.

Eleventh Annual Report of New York State Commission on Lunacy Oct. 1, 1898 to Sept. 30, 1899.

The Public Health and the State's Duty to Protect It. By M. M. Smith, M. D., Austin, Texas.

Report of the Government Hospital for the Insane to the Secretary of the Interior, 1900.

Local Application in Medical Practice. By Jos. E. Chambers, M. D.

Stump Pregnancy. By John C. Morfit, M. D., of St. Louis, Mo.

The Etiology and Cure of Hysteria. By F. Walter, M.D., Perry, Mo.

A New Nasal Splint. By Francis W. Alter, M.D., Toledo, Ohio.

Michigan Asylum News, Kalamazoo, Michigan.

MELLIN'S FOOD
for the Home Modification of FRESH COW'S MILK

Simple dilution of cow's milk with water is without avail in obviating the tendency of the milk to form tough and more or less indigestible curds.

PROFESSOR CHITTENDEN

The use of a natural cereal extractive containing saccharine and gummy matters and soluble albuminoids as well, such as our great and inspired teacher Liebig himself advocated, is in accordance with the developments of science since his time. Mellin's is a genuine Liebig's Food.

PROFESSOR LEEDS

MELLIN'S FOOD COMPANY. BOSTON, MASS

PUBLISHERS' DEPARTMENT.

Insanity in Lead Workers; Acute Delirious Mania.—Robert Jones concludes: (1) That lead poisoning is a contributory factor in the causation of insanity, and that in lead workers there is a higher average number of general paralytics than in others of the population; (2) that there is a tendency in these cases to cardiac, renal and arterial degeneration with complications due to syncopal or epileptic fits; (3) that most cases present marked signs of anæma and ill-health, with unsteadiness of gait and general impairment of muscular strength and very frequently a history of temporary failing vision; (4) that the mental symptoms may be grouped among one or other of the following varieties: (*a*) those in the nature of toxæmia and with sensory disturbances, and which tend rapidly to get well; (*b*) those with hallucinations of sight and hearing more chronic in their nature, and which may be irrecoverable. The delusions in this class are almost invariably those of being poisoned or followed about, and are in the main persecutory; (*c*) those resembling general paralysis with tremors, increased knee jerks, incoördination, and accompanied with listlessness amounting to profound dementia, but which tend to get well; (5) and that in most lead cases presenting mental symptoms the tendency is to recovery unless the patient dies early.—*Medical Record Abstract from British Medical Journal*, September 22, 1900.

Moral Idiocy; Its Frequency in the Descendants of the Insane.—Morel has shown that medical maladies are aggravated from one generation to another, and that moral insanity is often met with in the children

Impotency Cases

natters not how hopeless; cured or relieved by our combination.

Helantha Compound.

lianthus annuus [sunflower.] Fr. root, bark, H. Australian. Plain or with diuretic.

s a powerful action upon the blood and entire organism, is indated in **all cases** complicated with **Malaria, Scrofula,** impverished Blood, Anaemia, etc., etc., in conjunction with Pil Orientis (Thompson), will control the most obstinate cases of **Imponcy.** "Drink Cure" cases, saturated with Strychnine, "Weak n" cases, who tried all the advertised "cures" for impotency, i were poisoned with Phosphorus compounds readily yield to s treatment. Pil Orientalis (Thompson) contains the Extract brosia Orientalis.

The Therapeutical value of this Extract as a **powerful Nerve d Brain tonic,** and **powerful stimulant of the Reproctive Organs in both Sexes, cannot be over-estiated.** It is not an irritant to the organs of generation, but A CUPERATOR and SUPPORTER, and has been known to the native ests of India, Burmah and Ceylon for ages, and has been a harem ret in all countries where the Islam has planted the standard of ygamy.

It is impossible to send free samples to exhibit in Impotency es, requiring several weeks treatment, but we are always willing send complimentary packages of each preparation (with formulas medical testimonials) to physicians who are not acquainted h their merits.

Ices: { Helantha Compound, $1.85 per oz. Powder or Capsules.
{ Pil Orientalis (Thompson) $1.00 per box.

E IMMUNE TABLET COMPANY, WASHINGTON, D. C.

AGENTS:

Meyer Bros. Drug Co., St. Louis.
Lord, Owen & Co., Chicago.
Evans-Smith Drug Co., Kansas City.
Redington & Co., San Francisco.
J. L. Lyons & Co., New Orleans.

CLARK

ENGRAVING CO.

MEANS—THAT YOU CAN GET HIGH GRADE CUTS FOR ANY KIND OF LETTER PRESS PRINTING——AT 84 MASON ST. MILWAUKEE

HALFTONES ON ZINC OR COPPER
WOOD ENGRAVING COMMERCIAL & PHOTOGRAPHY &
ORIGINAL DESIGNERS & ARTISTS

Laxative Logic

To induce catharsis without the objectionable sequalæ common to a majority of laxatives, no remedy responds to the need of the physician with more satisfaction and celerity than SYRUP OF FIGS. As made by the California Fig Syrup Co. from the highest grade Alexandria Senna, SYRUP OF FIGS has achieved a potency and recognition as an agent of established therapeutic worth. There is no preparation that simulates Nature so well in its effect. No other is better suited to the permanent relief of intestinal inactivity, a functional derangement directly responsible for the condition described as constipation. Its gentle effect upon the intestinal mucous membrane and the natural peristalsis which follows the administration of SYRUP OF FIGS gives to it a unique value as a laxative, and suggests its adaptability to women and children because of its agreeable taste and persuasive action. It is invaluable to persons who through infirmity or occupation are committed to a sedentary life. It is *simple*, *safe* and *reliable*, and possesses the particular merit that its use does not induce the cathartic-taking habit, and in all cases where a laxative is indicated it is a help and not a hindrance.

SPECIAL INVESTIGATION IS SINCERELY INVITED.

"Syrup of Figs" is never sold in bulk. It retails at fifty cents a bottle, and the name of "Syrup of Figs," as well as the name of the "California Fig Syrup Co," is printed on the wrappers and labels of every bottle.

CALIFORNIA FIG SYRUP CO., SAN FRANCISCO; LOUISVILLE; NEW YORK.

of the insane. The truth of these two facts, which are fundamental in the study of alienation, is incontestable, and I have verified it myself. The expression 'moral insanity' designates a great moral perversion, which renders the individual in whom it exists incapable of adapting himself to the social order. It is improper, because it appears to suppose that this perversion is accompanied with delirious ideas, which is not so. The term 'moral idiocy,' employed by some authors, and under which Krafft-Ebing describes it with such precision, fits much better. The same as in intellectual idiocy, there may be admitted, according to the degree of perversion, a moral idiocy proper —an imbecility and a moral debility. In twenty-five hereditarily insane patients treated at the asylum of Evreux moral idiocy was found in seven, which shows its frequency. As for moral debility, it is almost constant in the descendants of the insane, even when they appear to enjoy normal cerebral faculties. It seems that this insanity is ordinarily produced by an excitation, vivid or prolonged, of the egoistic instincts, excitation which persists not only during the intellectual troubles, but persists for some time after their disappearance. The excitation develops these instincts, and the morbid development is yet augmented by hereditary transmission, which is progressive. Moral idiocy is a cerebral degenerescence which in no way resembles the savage state of our ancestors. They were not lacking, like moral idiots, in altruistic instincts, without which they would have been unable to live in association. Moral idiocy is often accompanied by a certain intellectual weakness, but is also met with in persons of the highest intelligence. Individuals who are tainted with it constitute a permanent danger to society, and should be placed in special refuges, from which they should not go out until their moral amelioration, established by a competent commission, permitted giving them liberty. Their place is not in insane asylums, where they spread disorder by their vicious instincts, and where, to prevent their frequent attempts to escape, very rigorous measures of surveillance must be employed, which aggravates their condition. To prevent the children of the

THE MK AND T
MISSOURI, KANSAS & TEXAS RY.



FAST TRAIN

The Katy Flyer"

BETWEEN

ST. LOUIS,
KANSAS CITY,
CHICAGO,

Has Through Sleepers

TO

GALVESTON, SAN ANTONIO AND AUSTIN, TEX.

Also Intermediate Points.

Excursion Sleepers leave St. Louis for Texas, New Mexico, Arizona and California every Tuesday, 8:16 p. m.

HAILE,
Traffic Manager.

JAMES BARKER,
General Passenger and Ticket Agent.

ST. LOUIS, MO.

insane from becoming tainted with insanity, it is best by long education, well directed, to repress their selfish feelings, which are too mnch excited, to develop their social sentiments, and give them plenty of quiet work.—*Abstract by A. M., in Weekly Medical Review, Dr. Daniel Brunet, International Medical Congress.*

The Prophylaxis of Insanity.—Although last in point of deliverance at the recent meeting of the Canadian Medical Association, the paper by Dr. R. W. Bruce Smith, on "Mental Sanitation," was probably first in point of importance. As the alienist, Dr. Smith speaks with no little weight; and the question is one which can well afford to be considered with care by the thoughtful sanitarian, who, for the time being, is the general practitioner. There is no class of the community who should command the attention of the physician, in the way of bettering their conditions and environment, more than the unfortunate who loses the proper conception of things in general; and this, in a large measure, they have received, as is evidenced in the splendid hospital facilities erected for their care and comfort all over the land. But in the endeavor to offset the tendency towards insanity, there is yet a wide field for enterprise and prudent forethought. In no direction can the mind of the physician be exercised to more advantageous work than that of devising ways and means for lessening the tendency towards insanity, which Dr. Bruce Smith, speaking with the authority of years of experience and close and direct observation, tells us is on the increase throughout the length and breadth of Canada. He points out that something like fifty per cent. of these cases is due to hereditary influence, and that efforts ought to be put forward to counterbalance that influence on those so disposed. In the other half much could, no doubt, be done in the way of prophylaxis; but they are generally allowed to drift until too late, and they then become wards of the government. The question of intermarriages amongst families having the same blood in their veins, and amongst people who are tainted with heredity, is an all-important one; and, even

The Treatment of

EPILEPSY AND THE NEUROSES

SUCCESSFULLY ACCOMPLISHED
...BY THE USE OF...



HYDROCYANATE OF IRON (TILDEN'S)

A STANDARD NEUROTIC REMEDY,

——INDICATED IN——

EPILEPSY	LOCOMOTOR ATAXIA	HYSTERIA	NEURASTHENIA
MANIA	NEURALGIA	CHOREA	MIGRAINE

DOCTORS, INVESTIGATE! Write us for literature and clinical reports on the treatment of EPILEPSY and NEUROSES. We have on file in our office hundreds of testimonials from men of prominence and ability in their chosen profession, who have employed HYDROCYANATE OF IRON (Tilden's) with unvarying success in the treatment of EPILEPSY. Copies of same cheerfully mailed upon application.

Prepared Exclusively for Physicians' Prescriptions.

SOLD ONLY IN OUNCE CARTONS, 1/2 AND 1-GRAIN TABLETS.
$1.00 PER OUNCE.

PREPARED ONLY BY

THE TILDEN COMPANY,

Manufacturing Pharmacists,

NEW LEBANON, N. Y. ST. LOUIS, MO.

The Western Clinical Recorder

(BI-MONTHLY).

A Pithy, Practical Periodical for Practicing Physicians

that will keep a man fully abreast of the times, if he can afford but one, and one that the practitioner who takes twenty cannot afford to do without.

The RECORDER will be found to be an original, clean, ethical, inexpensive periodical; a continuous post-graduate course in all departments of medicine and surgery.

THE USEFUL JOURNAL FOR THE BUSY MAN, $1.00 Per Year in Advance;

which subscription may be sent to the office of publication, Lakeside Press, Chicago, or to the Editorial Office, Ashland, Wisconsin.

at the risk of being considered officious, the family physician ought to deem it wise and prudent to counsel against the undying wrong which is about to be perpetrated towards the unborn innocent. Rural life, with all its charms, has many idle and monotonous hours. Idleness and monotony, without the charm and buoyancy of social life, may lead to melancholy and mental depression, which will inevitably lead to mental ruin and decay. The prevention of these depressed states ought, in a measure, to be within the province of the mental sanitarian, to teach—to educate the follower of the plow and the tiller of the soil and his careful and frugal housewife to participate more in the enjoyments provided by a bountiful nature. Insanity may be on the increase in this country, as well as in all other countries, because of the stupendous impetus given in the last two decades to mental activity. Education has revolutionized the world, and the cerebral organ is being worked as it never was before. Is it little wonder that there should be many wrecks by the wayside, where formerly they might weather the storm? "Give your boy an education" has resulted in crowding all professions and walks of life. Competition has become keen, and the struggle after the "almighty dollar," and even the bare existence, causes untold worry, which, two or three decades ago, was discounted by a more even distribution of the fruits of labor. Then the unwholly craze to be in the swim, to be well dressed, to appear well and keep up appearances must all be counted in as factors in producing worry and uneasiness, fraught with dire consequences to an already overwrought organism. These are weighty problems, productive in the end of untold misery and unhappiness; and in that they are such must surely command the attention of us all in an endeavor to stay the grim hand from gathering others within his clutches. Where to begin is the problem which confronts us as physicians.—*Dr. R. W. Bruce Smith before Canadian Medical Association, 1900; Dominion Medical Monthly.*

The Mosquito and Malaria.—No more interesting

WE SUPPLIED ALL THE CITY INSTITUTIONS WITH DRY GOODS LAST YEAR.

WM. BARR DRY GOODS CO.

Keep the Largest Stock of Goods suitable for

HOSPITAL PURPOSES

TO BE FOUND IN ST. LOUIS,

And Special Terms will be made with all Institutions ordering from them.

DDING MATERIALS OF ALL KINDS,
UNDERCLOTHING, IN SILK, WOOL AND COTTON,
LADIES' AND CHILDRENS' READY-MADE CLOTHING,
ANNELS AND UPHOLSTERY,
TABLE AND BED ROOM LINENS,
SOAPS, NOTIONS AND PERFUMERIES,

ARE ALL SPECIALTIES AT THE

WM. BARR DRY GOODS CO'S

NEW BUILDING,

TH, OLIVE AND LOCUST, - - - ST. LOUIS.

P. S. Write and find out our special terms to Hospitals.

HALL-BROOKE, A PRIVATE HOSPITAL
For Mental and Nervous Diseases
CASES OF ALCOHOLISM AND DRUG HABIT.

An inviting quiet **hospital** for the careful medical care of acute mental diseases, with a refined congenial **home** for the chronic mental invalid. The location is unsurpassed for healthfulness and charming environment. Cases of alcoholism and drug habit may commit themselves. For information and rates address

DR. D. W. McFARLAND,
GREEN'S FARMS, CONN.
Hours, 12-1 and by appointment.

New York Office with **Dr. LAWRENCE,**
55 East 65th St.
New York Telephone 591-79th St.

fact in the etiology of disease has been discovered than the part the mosquito plays in the transmission of malaria. It has stimulated the study of this disease, which seemed to have ceased after the discovery of the different forms of the plasmodium, and has aroused such scientific enthusiasm as to bring to its investigation many distinguished workers and to make the consideration of tropical diseases of the highest importance.

Many novel experiments have been made in medicine but none more so than the two suggested and carried out by Manson, who first conceived the relation of the mosquito to this disease. One consisted in having mosquitoes, which had fed on a malarial patient in Italy, brought to London and placed so as to bite a healthy individual, free from malaria and thus develop in this subject malarial fever.

The other, which was the complement, sought to keep Europeans, who had never had malaria, free from malaria in an intensely malarial region, where all the inhabitants and visitors suffered from malaria, simply by avoiding the bite of the mosquito. For the first experiment Manson used his son who after having been bitten by infected mosquitoes had chills, fever as high as 103.6° and sweats. The spleen was palpable on deep inspiration and many tertian parasites were found in the blood.

The other experiment took place in the Roman Campagna, near the mouth of the Tiber, in a wooden hut constructed in England. The only protection for the inmates was mosquito netting, wire screens in doors and windows and netting about their beds. They went about the country freely in the day time, avoiding the anopheles quadrimaculatus, and remaining in their hut from sunset to sunrise, as this species of mosquito, which is the carrier of the malarial parasite, bites only at this time. During the four months of their stay in this intensely malarial region the experimenters, five in number, enjoyed perfect health and had no sign of malaria. The experiments prove that a distinct species of the mosquitoes, the anopheles, is the carrier of the malarial parasite from man to man and that with care malaria, even where it is most prevalent, may

TO GUARD THE HEART

In the treatment of Febrile, Nervous and Chronic Diseases, and as a Remedy in Functional Disorders of the Heart and Circulation.

Each Pillet represents one one-hundredth of a grain of Cactina, the active proximate principle of Cereus Grandiflora (Mexicana).
DOSE—1 to 3 pillets.

USE

CACTINA is no longer an experiment. Physiological writers and the medical profession recognize in it the safest heart tonic in many conditions.

CACTINA PILLETS.

Sample mailed free to physicians.

Artificial digestive agents, such as pepsins and pre-digested foods, are temporary expedients. In treating chronic dyspeptics

SENG

increases the secretion of the digestive fluids, relieves congestion of the mucous coats of the entire alimentary canal and restores the assimilative processes. Dose—one teaspoonful before meals; the dose before breakfast preferably in hot water. Samples to physicians who will pay express charges.

SULTAN DRUG CO., Manufacturers of Cactina Pillets and Seng, St. Louis.

Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

WHEN YOU USE

PEACOCK'S BROMIDES

YOU USE THE BEST.

Each fluid drachm, represents 15 grains of the combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium, and Lithium.

Put up in half-pound bottles only. Full size sample to physicians who will pay express charges.

CHIONIA

AN HEPATIC STIMULANT, NOT A CATHARTIC.

(From Chionanthus Virginica.)

Stimulates portal circulation, strengthens the lymphatics, and removes Chronic Constipation and Sluggish Conditions of the Liver by its general tonic action on that organ.

Put up in half-pound bottles only. Full size bottle to any physician who will pay express charges.

PEACOCK CHEMICAL COMPANY, St. Louis.

Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

Peacock's Bromides

Chionia

Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides

be avoided. This discovery is likely to prove of incalculable benefit not only medically but also politically. The next century will probably see darkest Africa a thing of the past and malaria medical curiosity.—*Editorial in Albany Medical Annals.*

The Typhoid Bacillus and Drinking Water. At this time of the year when typhoid fever is at one of its two periods of increase many questions of interest arise regarding the disease. One of them, regarding which, the laity and even the general run of the profession seem to be somewhat confused, is the question of the isolation of the typhoid bacillus from drinking water. Apparently many hold the view that to the skilled bacteriologist the matter is a simple one. This is far from being the case. The suspected water is not submitted for examination until the outbreak of typhoid fever is well under way, whilst the infection of the cases occurred three weeks previously, allowing this time for the average period of incubation. The amount of water examined is of necessity small, so that bacilli, which are not evenly distributed through it but are present in groups or clumps, can easily be missed even if several samples are taken. Finally the typhoid bacillus is necessarily always associated with the colon bacillus, which rapidly outgrows and destroys it. As the result of these factors it is almost an impossibility to isolate the typhoid bacillus from water, and the presence or absence of the colon bacillus is usually regarded as the index of fecal contamination.—*Editorial in Albany Medical Annals.*

The Physician who is compelled to study, think and work incessantly to keep up with the competitive race, who has superfluous knowledge and skill stored away as reserve forces, whose business methods have given him relief from financial anxiety, whose willing acceptance and discharge of all his responsibilities has set conscience free to enjoy life, will be the most sympathetic, charitable, helpful, hopeful and faithful counsellor and friend man ever had in the dark days of disease.—*Dr. Lawrence.*

"RIVER CREST,"

(UNDER STATE LICENSE.)

ASTORIA, L. I., **NEW YORK CITY.**



FOR MENTAL AND NERVOUS DISEASES.

Separate detached building for **Alcoholic** and **Drug Habitues.** Splendid location. Overlooks East River and the City. Address **J. JOS. KINDRED, M. D., Physician-in-Charge.** City Office, 1125 Madison Avenue Cor. 84th Street, 2 o p. m. daily. Sanitarium telephone, 36 Astoria.

The Richard Gundry Home,

CATONSVILLE, BALTIMORE CO., MD.

A private Home for the treatment of Mental and Nervous Diseases, Opium and Alcoholic addictions. For Circulars, Rates, etc., Address,

DR. RICHARD F. GRUNDY, Catonsville, Md.

References—Dr. Henry M. Hurd, Dr. Wm. Osler, Johns Hopkins Hospital, Baltimore, Md. Dr. Thomas A. Ashby, Dr. Francis T. Miles and Dr. Geo. Preston, Baltimore, Md. Dr. George H. Rohe, Sykesville, Md. Dr. Charles H. Hughes, St. Louis.



INTERLAKEN.

Dr. Horace Wardner's Sanatorium,

DELIGHTFUL HOME *LA PORTE, IND.* **EVERY CONVENIENCE.**

Nervous and Mental Diseases. Alcoholic and Drug Habitues.

285 Feet Above Lake Michigan. WRITE FOR FULL INFORMATION, TERMS, ETC. Mentioning this Journal.

DR. WM. B. FLETCHER'S SANATORIUM.

For treatment of Nervous and Mental Diseases. Special treatment of Diseases of Women by DR. MARY A. SPINK.

218 N. ALABAMA ST., - - - INDIANAPOLIS, IND.

THE ALPHA SANITARIUM,

LAKE FOREST, ILLS.

Established for the treatment of the Functional Derangements and Morbid Psychologies that occur during Adolescence.

For further particulars address

W. XAVIER SUDDUTH, M. D., 100 State St., CHICAGO.

Mention this Journal when writing to Advertisers.

"The Hand That Holds the Pencil."—At a recent meeting of the South Dakota Press Association, Mr. M. C. Brown, editor of the *White Lake Wave*, read a bright effusion with the foregoing title. We quote two of the four stanzas:

We read of mighty powers
That are felt for right or wrong;
We have had them kept before our minds
In poems, prose and song.
There's the hand that rocks the cradle,
And the hand that writes the dun;
There's the man before the public,
And the man behind the gun;
There's the boy that minds his mother,
And the Jack that takes the pot;
While the hand that wields the slipper
Seldom fails to touch the spot.
Strong and potent are the forces
That against our lives are hurled,
But the hand that holds the pencil
Is the hand that prods the world.

Pencil pushers of the nation,
In whose hands the weapon lies,
Ponder well the aim and object
Ere the pointed arrow flies:
Dealing gently with the erring—
Still, denouncing all the wrong,--
Ever just in condemnation,
And in virtue ever strong.
Let your shafts be keen, yet kindly,
Never venom-tipped nor vile;
Seeking where a teardrop trembles
To replace it with a smile.
And while o'er our smiling planet
Heaven's azure is unfurled,
Let the hand that holds the pencil
Be the hand that helps the world.

THE HYGEIA SANITARIUM,

Astoria, Long Island, New York City.



A rest and health resort, magnificently situated in an elevated park overlooking East River and New York City. For Alcoholic and Narcotic Habitues and *all disorders* excepting Contagious diseases. Address,

J. J. KINDRED, M. D.,

Astoria, L. I., N. Y.

Greenmont-on-the-Hudson.

For NERVOUS and MENTAL DISEASES.

RALPH LYMANS PARSONS, M.D. RALPH WAIT PARSONS, M.D.

City Office, 21 East 44th St,, SING SING, P. O., N, Y.
Mondays and Fridays, 3:30 to 4:30,p.m. Long Distance Tel., Hart, 140A, Sing Sing, N.Y

CREST VIEW SANITARIUM,

GREENWICH, CONN.

A quiet refined home for the treatment of

Chronic and Nervous Diseases,

In the midst of beautiful scenery, 28 miles from New York.

H. M. HITCHCOCK, M. D.

FALKIRK.

JAMES FRANCIS FERGUSON, M.D. **M. LANGDON BIRD, M.D.**

On the Highlands of the Hudson, near Central Valley, Orange Co., New York. A Home for treatment of nervous and mental diseases, and the alcohol and opium habits.

Falkirk is 800 feet above the sea level; the grounds cover over 200 acres; are well shaded and command a magnificent view. The buildings are steam heated and lighted by gas, the water supply from pure mountain springs. All the rooms face the southwest, the best methods in sewerage have been followed, and the arrangements for comfort and recreation include a sun-room, steam-heated in winter.

Dr. Ferguson may be consulted at his office, 168 Lexington Avenue, New York City, Tuesdays and Fridays, between 11:30 a. m. and 12:30 p. m., and by appointment, or may be addressed at Central Valley, Orange County, New York. Long Distance Telephone, "Central Valley, New York."

SANITARIUMS AND DOCTORS

CAN OBTAIN

SPECIAL RATES for CARD ADVERTISEMENTS

We have a few bound copies of the ALIENIST AND NEUROLOGIST on hand. Price, $6.50 Prepaid.

Mention this Journal when writing to advertisers.

A Valuable Hypnotic.—Every progressive physician recognizes the necessity of overcoming the insomnia attending certain diseases. At this season of the year, when pneumonia is so prevalent, probably nothing will so satisfactorily relieve the distressing symptoms of sleeplessness as Bromidia. By the use of this reliable preparation we can obviate the effects of losing sleep, and at the same time feel that the heart's action is unimpaired, a dire calamity in a pneumonic process.—*Vermont Medical Monthly.*

Physiological Standardization.—What right has any firm, whose business is to furnish the physician with his principal weapons, to place upon the market pharmaceutical preparations of unknown medicinal value? Should we not expect, yes, even demand, that the producer of fluid extracts make his products conform to some standard of excellence—that he shall indicate what effects his fluid extracts may be expected to have ere he sends them forth from his laboratory?

It has been shown that even drugs selected with care vary most extraordinarily in their percentage of active principles. Witness, for example, this statement by the editor of a leading pharmaceutical journal (*Bulletin of Pharmacy*, January, 1899) who knows whereof he speaks:

"Prof. Puckner assayed nineteen samples of belladonna leaves procured, mind you, from dealers who were told that only the best was wanted, and that purchase would depend upon the results of the assay. He found these nineteen samples to range in alkaloidal content from .01 to .51 per cent! The strongest sample fifty-one times as strong as the weakest."

The most careful treatment of such drugs, with the choicest menstrua, and by the most approved processes, will yield preparations that may be fair to look upon, but in medicinal value they will vary just as much as the crude drugs from which they are made. The compensatory remedy for this unfortunate condition is standardization—chemical standardization—when practicable, and when that method is inadmissible, as it often is, physiological stand-

ESTABLISHED 1870.

RIVERVIEW SANITARIUM.

For the private care and treatment of Nervous persons, Mild mental cases, Opium and select Alcoholics. Thoroughly equipped with modern Electrical and Hydriatic devices, Turkish baths, etc.

Arrangement for the reception of patients can be made any hour of the day or night by means of a long distance telephone from any point. Our number is 46-2 Fishkill.

ADDRESS P. O. BOX, 694.

W. S. WHITWELL, M.D. FISH-KILL-ON-HUDSON, NEW YORK.

THE WESTPORT SANITARIUM,

WESTPORT, CONN.

A Private Institution for the Care of Mental and Nervous Diseases.

Pleasantly Situated. Extensive Grounds. Fifty Acres.

Beautiful drives, walks and grove of pine trees. Careful Medical supervision, Kind and Reliable attendants. Bowling Alley, Croquet, Tennis and frequent entertainments. Cottage care with private attendants if desired. Terms Moderate. Applications can be made at 979 Lexington Avenue, New York City, (Wednesdays from 10 a. m. to 12:30 p.m.)

Address F. D. RULAND, Medical Supt.,

Telephone D 13. WESTPORT SANITARIUM, WESTPORT, CONN.



THE "MUNSON" No. 2.

Munson No. 2.

The Latest Model Steel Typewheel.

Changeable Instantly to any Language, any Style of Letter

Or to the Medical or Mathematical Characters.

Universal Keyboard, 32 keys print 90 different characters. Write for artistic Catalog.

EDGAR A. HILL, Manufacturer.

94-96 Wendell Street, CHICAGO.

Terms to Agents on Application.

Mention this Journal when writing to Advertisers.

ardization. It has been found that certain important drugs cannot be assayed chemically, as their medicinal virtues reside in unstable bodies, and these are readily decomposed in the analytical processes. For this reason the strength of such powerful and useful drugs as digitallis, aconite, convallaria, strophanthus, ergot, cannabis Indica and many others cannot be determined satisfactorily by the analytical chemist. However, the problem which proved to be an insurmountable difficulty to the chemist, was solved by the pharmacologist with ease. He tests upon living animals all drugs that cannot be assayed chemically. Dogs, rabbits, fowls and guinea-pigs receive doses of the preparations under examination. Accurate observations of their physiologic effects are made, variations are noted and corrected, until the preparations correspond in medicinal strength with the adopted standard extracts.

Formerly the physician was obliged to make his own physiological tests of ergot, digitalis and so on; not upon dogs and guinea-pigs, however, but upon his patients. The old way was to begin with small doses of powerful drugs and then to push them until the desired effect was produced. The new way is a much better one: it is safer for the patient, more satisfactory to the physician, and it is more scientific. Prompt results are assured, for the physician knows just how much fluid extract of ergot, aconite or cannabis Indica he need include in his initial dose to secure a definite result.

The name of the greatest pharmaceutical manufacturing house in this country is so closely linked with the phrase, "drug standardization," that the mere mention of one suggests the other. Parke, Davis & Co. began years ago to manufacture a full line of standardized fluid extracts that are guaranteed to be of definite and uniform strength. More recently they devised and perfected methods for standardizing physiologically those important drugs that are incapable of analysis by chemical processes. Parke, Davis & Co. have done a great deal for the medical profession and for humanity, and standardization, more especially physiological standardization, is one of their greatest achievements.

SYRUP

HEMATIC HYPOPHOSPHITES

(IMPROVED).

FORMULA.

fluid ounce contains:

Potassium Hypophosphite, 1 1-2 grains.
Manganese Hypophosphite, 1 grain.
Strychnine Hypophosphite, 1-8 grain.
Iron Hypophosphite, 1 1-4 grains.
Calcium Hypophosphite, 1 grain.
Quinine Hypophosphite, 7-16 grain.

It will be remarked that the medical constituents of the up are present in very small proportion.

In the debilitated conditions in which the preparations of hypophosphites are usually prescribed, minute doses often rt a more favorable influence than the full doses which the sician is tempted to prescribe. In cases of nervous exhaus- especially, recuperation is necessarily slow, and medica- to be successful must be based on the maxim *festina te.*

The combination of remedies is one adapted to a great ety of diseased conditions. It is likely to prove useful erever there is debility or depraved nutrition, but it is spec- appropriate in cases of anæmia and nervous prostration. ill be found a general *Tonic-stimulant* of unusual value.

PARKE, DAVIS & CO.,

OIT. NEW YORK, KANSAS CITY.

Hunter McGuire's Opinion.—The late Hunter McGuire, the most celebrated surgeon of his time in the United States, if not in the world, was asked for his opinion of antikamnia by Dr. Thos. C. Haley, of Riceville, Va. Dr. Haley, in writing of this circumstance to The Antikamnia Chemical Company, says as follows:

"I recently wrote to Dr. McGuire and gave him my experience with antikamnia in my own case and that of others. Of myself, I said that I had been using the five-grain tablets for four or five years consecutively, and always with great and signal relief to my sufferings. I vouched for it as being the grandest succedaneum for morphia. While I entertained these opinions personally, I still felt that the quantity taken should be justified by consultation. Hence, the letter to Dr. McGuire, and I am pleased to hand you herewith his reply.

The following is Dr. McGuire's reply:

ST. LUKE'S HOME, RICHMOND, VA., Nov. 8, 1894.
THOS. C. HALEY, M. D.

My Dear Doctor:—I don't see any reason why you shouldn't continue to take the remedy (Antikamnia Tablets) of which you speak and which has done you so much good. I don't believe it will do you any harm. With kind regards and best wishes, Very truly yours,

(Signed) HUNTER McGUIRE.

"Les Enfants du Bon Dieu."—Our much esteemed editorial cotemporary, Dr. Warren B. Outten, friend of our early manhood's days, in his valuable periodical, the *Interstate Medical Journal*, of this city, thus refers to an excellent and timely article of one of the many distinguished contributors to the ALIENIST AND NEUROLOGIST:

"The responsibility or irresponsibility of the imbecile for crimes which he commits is well discussed by Martin W. Barr in the ALIENIST AND NEUROLOGIST for January, 1900. This author takes up the case of one Samuel Henderson, aged fifteen years, who on January 14, 1898, killed Percy Lockin, aged five years. The deed was committed one afternoon in a wood near Philadelphia. The

BELLEVUE PLACE SANITARIUM



35 Miles from Chicago.

Established by **DR. R. J. PATTERSON** in 1867.

for the treatment of

ERVOUS AND MENTAL DISEASES OF WOMEN.

A massive stone structure with spacious rooms, electric light and steam heat, large greenhouses, extensive grounds and beautiful country drives. Private and retired, with home comforts, restful surroundings and skillful medical treatment. **Terms moderate.** Address for circular,

F. H. DANIELS, M. D., or BELLEVUE PLACE CO.,
BATAVIA, ILL.

OAK GROVE HOSPITAL

For Nervous and Mental Diseases.



Grounds comprise sixty acres of stately oaks, and are picturesque and secluded. Buildings roomy, homelike, free from nstitutional features, and erected with especial reference to the care of nervous and mental invalids.

Interiors Bright and Cheerful. Luxurious Furnishings, Superior Appointments, Skilled Attendance, First-class Cuisine.





iquipment for hydro-
t rapeutic and electric-
a treatment complete
a! modern—Static,
C vanic and Faradic
A paratus, Electric Bath, Turkish and Russian
E hs and Massage.

loyes Amusement Hall in connection with the
H pital, containing gymnasium, billiard room,
b ling alley, hall for assemblies, sitting room,
l ging room and library, furnishes ideal facilities
f indoor sports and diversion. Carriages for the
d ly use of patients free. For terms, address

DR. C. B. BURR, Medical Director. FLINT, MICH.

murderer stabbed his young victim with a potato-knife, and then attempted to sink the body in the river. The body was afterwards found, and a confession was obtained from young Henderson of his guilt. Barr, an expert for the defense, made a careful study of the boy's case, and upon good grounds made a diagnosis of imbecility. The jury returned a verdict of murder in the second degree, based on irresponsibility. The judge deferred sentence, but finally, after consideration, sent the boy to the penitentiary for twenty years, the only means of protection alike to society and for the poor unfortunate.

The outcome of this case is very strange, and but illustrates the peculiar *pot-pourri* which is occasionally compounded by a court of what is commonly known as justice. It is plain to us all that in this case judge and jury alike were quite convinced of the irresponsibility of this boy for the murder. For the reason that the boy showed some traits of reason, for instance, a good memory, an aptitude for remembering faces, etc., these jurors could not understand that the prisoner was absolutely irresponsible, for did he not have a ray or two of reason left, else how could he remember anything? As Barr truly says, it seems well-nigh hopeless for the alienist to make the general public understand that an imbecile, for instance, may be vastly more clever than a normal child along certain lines, that he may have a phenomenal though not residual memory, that he may have a capacity for music, drawing or painting to an unusual degree, and yet be absolutely lacking in ability for the simplest primary school work. In other words, the lay mind and many of the minds of pseudo-medical experts, for that matter, absolutely cannot compass what daily clinical experience teaches the observant alienist—that it is not the capacity along certain lines which alone will give us grounds for judging of the sanity or insanity of a given case; it is a careful study of the whole personality of the individual, and especially is this true when we come to deal with the imbecile. We can only arrive at an intelligent idea of the true nature of a mental affection by taking the case and studying it from

The David B. Crockett Company.

Manufacturers of

INE VARNISH SPECIALTIES.

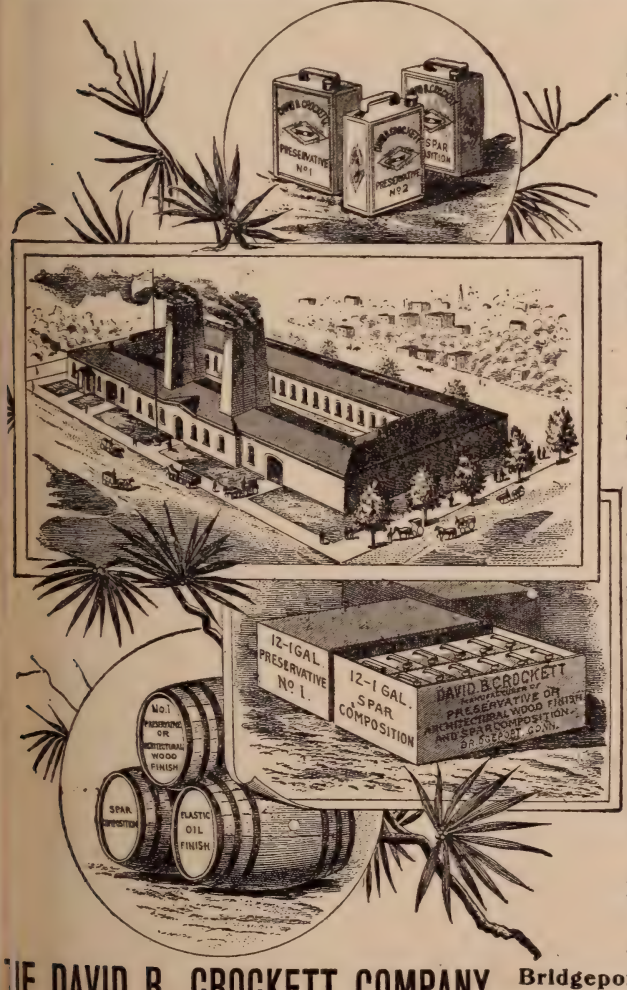
Leaders in our line during thirty years past.

ve Practical Reasons why Architects, Builders, overnment and State Institutions should use

TRADE MARK
NONE GENUINE UNLESS BEARING
TRADE
CGC
D.B.CROCKETT
TRADE MARK
PATENTED
OF INVENTOR
FEB.14TH 1871.

THE DAVID B. CROCKET CO.'S PRESERVATIVE:

1.—It develops and preserves the different kinds of wool in their natural beauty.
2.— It is not affected by hot or cold water.
3.— Will not crack, blister or turn white.
4.—Its surface is not impaired by contact with soap, grease, or by the ammonia generated in Bath Rooms, Stables, Hospitals, or other public buildings.
5th.—As a finish in Dining Rooms, Kitchens, Hallways, Bath Rooms and Interiors of Railway Cars, over grained work or on hard wood it is superior to any article in use. Nothing else will stand on Refrigerators.



Water Proof Floor Finish

For Interior Floors, Oil Cloths, or Linoleums. Can be rubbed and left with an egg shell gloss, whi h is superior to wax finishing and costs less.

Bath Room Finish.

A new specialty for varnishing Toilet, Bath, Engine, Refrigerator, and Store Rooms, Boat Houses, Yacht Cabins and Saloons, Breweries, Stables, Laboratories, Kitchens, Pantries and Water Closets. Not affected by frequent contact with chemical gases, immersion in salt water, or washing with hot or cold water and soap.

Five Practical Reasons Why

Architects, Builders, Government and State Institutions

should use the

David B. Crockett Co.'s.

Spar Composition:

The only genuine article of its kind in the market.

1st.—As a finish on exterior wookwork on Yachts, Steamboats and Railway Cars it has no equal.

2d.—On Front or Vestibule Doors, over grained work or on natural woods, it will outwear all other materials used for such purposes.

3d.—It will not crack, turn white or blister.

4th.—It will stand washing with hot or cold water and soap

5th.—The extreme toughness and durability of Spar Composition make it superior to any article of the kind ever offered.

All our goods can be rubbed and polished or left with an egg shell gloss.

If local dealers cannot supply you, send direct to

IE DAVID B. CROCKETT COMPANY,

Bridgeport, Conn., U.S.A.,

Our "Architectural Hand Book," giving prices and full ticulars, sent free on application.

SAMUEL SWAN, President.
W. B. LENT, Vice-President.
CHAS. P. TOWNER, Sec. & Treas.

Mention this Journal when writing to Advertisers.

"start to finish;" it is the *tout ensemble* that tells the tale. And so, in this instance, it is truly a matter of regret that a supposedly intelligent judge and jury should consign an imbecile, such as this boy clearly was, to a life in the convict's garb. Not only does it signify an act of injustice to the boy and to his people, from a humanitarian standpoint, but it also signifies a culpable act, a menace to the future of society; for certainly when such a man is turned adrift at the end of his twenty years' confinement in prison, he will be a veritable fire-brand to the light superstructure of society, so that it will only be a question of a few hours of freedom before he will again be hounded to death for another crime for which he is assuredly irresponsible. As Barr says: "Would that some philanthropist, bound by ties of love and kinship to one of these unfortunates, would build a place of refuge for these unfortunates, these, whom the French have so touchingly named '*Les Enfants du bon Dieu.*'"

Mt. Tabor Nervous Sanitarium, Portland, Oregon, begs to announce to its medical friends that Dr. Alicia F. Jeffery has accepted the position of superintendent of the Sanitarium. Dr. Jeffery has had an extensive hospital experience, including two years as superintendent of St. Mark's Hospital, Grand Rapids, and three years of St. Luke's Hospital, Denver.

HENRY WALDO COE, M. D., Medical Director.

Three String Corsets.—Among the many novelties referred to in the January number of the *Delineator* is a very simple device whereby any make of corset can be fitted with three strings, so as to assist in producing the upright form now so eagerly sought by athletic girls and women, and women and girls who ought to be athletic.

The Golden Ages of the world are so called for their culture, art and literature—not for their vast accumulations of wealth.—*Saturday Evening Post.*

BARNES MEDICAL COLLEGE, City of St. Louis, Mo.



BOARD OF TRUSTEES.

JOHN D. VINCIL, D. D., President,
Grand Secretary Masonic Grand Lodge of Missouri.
JOHN C. WILKINSON, Vice-President,
Hargadine-McKittrick Dry Goods Co.
GEO. A. BAKER,
President Continental National Bank.
A. M. CARPENTER, M. D.,
Vice-President of the Faculty.
A. R. KIEFFER, M. D., Assistant Secretary.
WM. T. ANDERSON, Treasurer,
President Merchants Exchange and Director St. Louis National Bank.
J. B. LEGG President Legg Architectural Co.
C. H. HUGHES, M.D., President of the Faculty.
JOHN H. MARMADUKE, Cashier Mexico Savings Bank.
HON. JNO. M. WOOD, ex-Atty., Gen'l. Mo.
PINCKNEY FRENCH, M. D., Secretary.

FACULTY.

f, C. H. Hughes, M. D., Pres.
Chas. R. Oatman, M. D.
W. C. Day, M. D.
Jno. H. Duncan, M. D.
Edwin R. Meng, M. D.
M. D. Jones, M. D.
J. T. Jelks, M. D.

Prof. A. M. Carpenter, Vice-Pres.
" S. C. Martin, M. D.
" W. L. Dickerson, M. D.
" G. M. Phillips, M. D.
" F. L. Henderson, M. D.
" A. R. Keiffer, M. D.
" J. H. Tanquary, M. D.
" Jno. W. Vaughan, M. D.

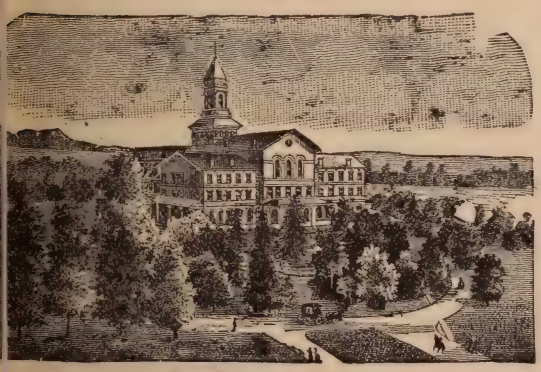
Prof. C. M. Riley, M. D.
" A. W. Fleming, M. D.
" R. C. Blackmer M. D.
" C. H. Powell, M. D.
" M. Dwight Jennings, M. D.
" J. Leland Boogher, M. D.
" Pinckney French, M.D., Secretary.

A FOUR-YEARS' GRADED COURSE OF INSTRUCTION.

Season of 1899-1900 commences September 11th, and continues seven months. Instruction, especially tical: new and spacious building, located in the heart of the city and within five blocks of the new station: ern in all appointments; ample clinical and laboratory facilities; course of study conforms to the require- ts of all health boards: tuition moderate: ho pital and dispensary privileges free. Special terms to sons and hers of physicians, sons of the clergy and graduates of pharmacy and dentistry. For announcement or rmation, address

BARNES MEDICAL COLLEGE, ST. LOUIS, MO.

OXFORD RETREAT,



A private Institution for the treatment of Insanity, Nervous Disorders, Inebriety and Opium Habit.

Facilities and advantages are unsurpassed for the proper care and treatment of all forms of the above named disorders. Attention is given to the proper classification of patients. Average one attendant to every four patients. Careful supervision at all hours. Every needed convenience, and any accommodation that may be desired. Retired and homelike. Site elevated, beautiful and salubrious. Thirty-nine miles from Cincinnati. Eighty-four miles from Indianapolis. Eight trains daily. Terms moderate. For references, terms, etc., address

G. M. COOK, M. D., Superintendent,

OXFORD, BUTLER CO., OHIO.

It Is Not Generally Known that Dr. George F. Butler, Medical Superintendent of the Alma Sanitarium, Alma, Michigan, is Professor of Materia Medica and Therapeutics, College of Physicians and Surgeons, Chicago, formerly Professor of Internal Medicine, Chicago Clinical School, and author of an admirable work on Materia Medica, Therapeutics and Pharmacology, a volume which, within the brief period elapsing since its publication, has passed through three editions and has been cordially received by the medical profession at large, as well as adopted as a text book in important seats of learning, both in the United States and in Canada. It is not surprising that under the competent direction of so noted a medical authority the Alma Sanitarium should exhibit the soundest and most salutary treatment of its guests.

The New York School of Clinical Medicine has opened up a new department of neurology, namely, the study of the neuroses and psychoses of spirit and drug diseases. Dr. T. D. Crothers, of Hartford, Conn., has been elected professor, and will deliver lectures and give clinical instruction on inebriety from alcohol, opium,cocaine, and other narcotics, particularly on the symptomatology, treatment and medico-legal relations. These lectures will begin February 18, 1901, in the lecture room of the college, 328 West Forty-second Street, New York City. This is the first effort to give special systematic instruction in this new field and raise the subject to the level of scientific medicine. A good move and a good man selected. We regret notice of this worthy appointment had not come to hand sooner for better space.



C. H. Hughes

THE
ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, APRIL, 1901. No. 2.

ORIGINAL CONTRIBUTIONS.

FRIEDRICH NIETZSCHE:

A STUDY IN MENTAL PATHOLOGY*

By WILLIAM W. IRELAND, M. D.,

SCOTLAND.

FRIEDRICH NIETZSCHE was descended from a noble Polish family which had sought refuge in Germany from religious persecution. His ancestors on both sides are reported to have been healthy and long-lived. His father was a Lutheran clergyman; his mother the daughter of a clergyman. He was born on the 15th of October, 1844, in the village parsonage of Röcken, in Prussian Saxony. When Friedrich was five years of age he lost his father, who had labored under a cerebral affection for eleven months. His daughter, Frau Förster-Nietzsche,† insists that this was the consequence of a fall on the head; but Friedrich stated his belief that his own nervous disorders were inherited from their father. Olla Hansson‡ learned from a family who knew Friedrich Nietzsche from childhood that a disposition

*This article appeared incomplete in the *Journal of Mental Science* having been curtailed in that excellent journal on account of a plethora of other papers. At the authors request we print the entire article. It contains some omitted passages the author much desired should be presented to the public.

†*Das Leben Friedrich Nietzsche's von Elizabeth Forster-Nietzsche, Leipzig, 1895.*

‡*Olla Hansson's Friedriche Nietzsche*, quoted by Dr. Hermann Türck in his pamphlet *Fr. Nietzsche und seine Philosophischen Irrwege*, Jena und Liepzig, 1891. The author has made a careful study of Nietzsche's writings and his criticisms are judicious. He furnishes no fresh medical details. His knowledge of insanity seems mainly derived from the Handbook of Schüle.

to insanity had been inherited for several generations both on the father's and the mother's side. We have another from Frau Andreas Salomé,* who had acted as secretary to Nietzsche for five months in 1882 and afterwards kept up a correspondence with him. Her estimate differs from the fond appreciation of his sister, who passionately accuses her of misunderstanding or mis-stating her brother's character. Frau Andreas, founding upon her personal knowledge and a warm friendship for the philosopher, has given an explanation of his aberrations, which she pursued through all his writings. In this she shows much analytical skill, though her book is somewhat too disquisitional and contains few of those traits which female observers are apt to record.

As a child nothing particular is recorded of his health, save that he was two and a half years old before he began to speak. In boyhood he was fond of solitude, shunning other children, and nice in his habits. From his pious and studious ways he was called the little parson. At the end of his school education he studied at the Universities of Bonn and Leipzig. He disliked the noisy, drinking and smoking habits of the students. He must have gained great reputation in the study of languages, for he was appointed professor of philology in the University of Basle when twenty-four years of age. Nietzsche had none of the struggles which sometimes beset the early life of the student. He stepped at once into a good position with a moderate income. On the strength of this promotion he was made doctor of philosophy by the University of Leipzig without examination or thesis. The young professor now gave himself up to his duties, lecturing at the University and giving lessons in Greek at the Upper School of Basle. Enjoying the friendship of Richard Wagner, he spent much of his leisure time at the house of the great composer at Lucerne. Nietzsche was himself an enthusiast for music, and some of his compositions are given in the biography by his sister. He had a keen appreciation of poetry and wrote verses which are difficult to read or understand, a smouldering of poetic fire giving forth much smoke and rarely bursting into flame.

**Freidrich Nietzsche in seinen Werken von Lou Andreas Salome, Vienna, 1894.*

His peaceful life was broken by the war of 1870. He had never completed his service as a soldier, owing to an injury received in springing upon an unruly horse, nor would the Swiss state have allowed him to take part as a combatant, so he went to serve in an ambulance corps. With the invading army he entered France, when he was seized with diphtheria and cholera nostras. He managed to reach Erlangen, there to fall prostrate. Perhaps, as his sister remarks, he returned too soon to his duties at Basle. At any rate he never quite recovered his health. He used to suffer about every two or three weeks from attacks of migraine, violent headaches, sickness, narrowing of the field of vision, and sleeplessness. These attacks were often accompanied by mental distress.

Frau Förster says her brother had naturally a good constitution; he was broad and muscular, and suffered from no defect save that he was very short-sighted. This both he and his sister seem to have inherited from their father. Though retiring and undemonstrative to those whom he did not know well, he was naturally very sensitive, accessible to pity, and mild and gentle in his manners. In the summer of 1875, after an unusual time of suffering, he wrote to a female friend: "Such as we (I mean you and I) never suffer in the body alone: all is intergrown with mental crises, so I have no conception how I could again become sound through medicine and cookery. The secret of all recovery for us is the acquirement of a certain toughness of skin against our great internal sensitiveness and irritability. Nothing from without may now hurt or bruise us. At least I no more suffer as if fire scorched me from within and without." In 1876 Nietzsche got a year's leave to recruit his health. He spent the winter at Sorrento; but his malady followed him everywhere, and in the beginning of 1879 he was forced to resign his professorship. His friend Burckhardt, the professor of the history of art, said that Basle had never enjoyed such a teacher, and he is said to have had great influence over the young men. He had filled the chair for ten years, and was allowed to retire upon a pension of 3,000 francs.

Nietzsche now led a wandering life amongst the Swiss mountains, principally in the Engadine and in Genoa. During the first year his health scarcely improved. In 1880 he wrote: "There lies a heavy, heavy load upon me. Last year I had one hundred and eighteen days of distress. I still lived, but I could not see three steps before me." He struggled manfully with his malady, and in 1882 his condition began to improve, when he formed a plan to study the natural sciences in Vienna, Paris and Munich. This, if executed, might have steadied his restless thoughts and inured him to a strict method of investigation. His studies had principally lain in Greek literature, music and of the renaissance. A man versed in such subjects has the name of being learned, and yet may be very ignorant. Nietzsche himself thus bewailed the time he had spent at Basle: "There ten years of my life have fled, ten years in which the nourishment of the mind has been suspended, where I learned nothing useful and forgot very much. For some old ware of dusty learning I crept tortoise-like among Greek versifiers with my bad eyesight. With pity I saw myself so emaciated. There were no realities in my budget of the sciences, and the realities were worth nothing. Sickness gave me a right to a complete change in all my habits; it allowed, it prescribed to me, forgetfulness; it granted me the necessity of repose, of idleness, of waiting and of patience. But that means thinking. On account of my eyes it was impossible for me to be a bookworm, in German a philologist; I was released from 'book.' I read nothing for years. This relief was the greatest boon which I have ever accorded to myself. This undermost Self, smothered and stilled under the continuous 'must listen' of other Selves (and that is reading), slowly awakened, bashfully, doubtfully, but at last it speaks again. Never have I had so much happiness in myself as in the years of my life when suffering from sickness and pain: one has only to glance at '*The Morgenrothe*' ('The Dawn') or '*The Wanderer und Seine Schatten*' ('The Wanderer and His Shadow') in order to comprehend that this 'return to myself' was the highest kind of recovery. The other followed upon it.'

Unable to read, Nietzsche took to writing, and as he used no restraint in giving his opinions, the procession of his published volumes form a consecutive record of the changes of his beliefs and mental states. While it was his destiny to study, teach and speculate upon languages, his natural bent swayed him to inquire into the problems of philosophy, and his material wants having now been provided for, nothing hindered him from giving way to these tastes. For some men the restraint of circumstances, of other men's opinions and the necessity for work are salutary. Living in the atmosphere of the college, surrounded by cultivated friends and overlooked by the state authorities, Nietzsche was fenced in by environment which was both a restraint and a support. But his self-conceit, naturally large, was swelled by being steeped for ten years in the admiration of his students.

In his solitude there was now no one to check or criticise him. His only sister had married and gone to Paraguay. In his tastes and mental processes, in his whole nature, there was something eccentric and perverse; his thoughts did not seem to follow the same associations as other men; they were vehemently pitched, and this divergence from normal mental processes went on taking sharper and sharper curves. He parted with all the religious faith in which he had been nurtured by his pious mother. This separation was mainly through intellectual difficulties; as he himself said, the Christianity of his parents' parsonage had lain upon him smooth and soft, like a skin, and he had no difficulty in keeping its commandments.* For some years he entertained a deep reverence for two masters in philosophy and art, Schopenhauer and Wagner. In 1865 he lighted upon the works of the great pessimist philosopher in an old book-shop, and adopted his views with enthusiasm; but there was an ardour, a restlessness, a disintegrating force in Nietzsche's mind which soon made him throw off all authority and disengage himself from all beliefs. His attitude to received social and political views became more and more belligerent. He took no pleasure,

*Andreas Salome, p. 48.

as weaker souls may do, in following the heterodox views of others. He himself said: "My mode of thought requires a warlike mind, a desire to give pain, a pleasure in saying No." He delighted in smashing new idols as much as throwing stones at the old ones. He professed a great desire for the truth and enjoyed the right of proclaiming his opinions all the more when they were hostile to the many. He wrote that he would not be ready to be burned for his opinions, he was not so sure about them; but he might, perhaps, have gone to the stake for the right of holding his opinions and changing them. Though no man ever put people's toleration to greater strain, Nietzsche took with ill-humor the dissent of his friends from his own notions. He said that he could bear that worthy people should hold fast to the creed in which they had been reared, but when one who had once parted from the faith again became a believer he could not contain his indignation and disgust. He well describes the devouring restlessness of his mind in these verses:

"Ja! Ich weiss woher ich stamme!
Ungesattigt gleich der Flamme
Gluhe und verzehr ich mich.
Licht wird alles das ich fasse,
Kohle alles was ich lasse;
Flamme bin ich sicherlich."

"Yes, I know whence I arise; insatiate like the flame, I glow and consume myself. Light is all that I produce; blackened ashes all I leave. I am flame assuredly."

Perhaps one source of the attraction which his writings have for some people consists in his scornful denunciations of the besetting weaknesses of the day. Whatever the explanation may be, Nietzsche's name is now often quoted in the periodical literature of Europe. In Germany a host of articles and even some books have been written about or upon him, and we are told that he has a great and increasing influence with the young men, especially with artists and literati. His admirers call him the greatest of recent German stylists. Several books have been written

upon him in France, and we are told in the *Nuova Antologia** that his name is popular in Italy, as elsewhere. A course of lectures has been delivered upon his works by Prof. George Brandes, Copenhagen, and several volumes of his books have been translated into English. The Nietzschians have, or had, a special organ called *The Eagle and the Serpent*. Mr. Seth Pringle-Pattison has written articles upon Nietzsche in two popular magazines,† though he seems to have no sympathy with his views. Perhaps Mr. Pattison's remark "that originality in philosophy is not easy of attainment" may be the explanation. The learned professor has found in Nietzsche "passages which in their lucid simplicity seem to reflect something of the serenity and purity of the mountains and the stars; and when more rarely an elegaic note mood is touched the words fall with a haunting beauty of cadence."

On the other hand I may quote what one of the ablest German authors of the day has written about Nietzsche's compositions. In his well-known book on *Degeneration* Max Nordau says: "From the first to the last page of Nietzsche's writings the careful reader seems to hear a madman, with flashing eyes, wild gestures and foaming mouth, spouting forth deafening bombast, and through it all, now breaking out into frienzied laughter, now sputtering expressions of filthy abuse and invective, now skipping about in a giddy, agile dance and now bursting upon the auditors with threatening mien and clenched fists. So far as any meaning at all can be extracted from the endless stream of phrases, it shows as its fundamental elements a series of constantly reiterated, delirious ideas, having their source in illusions of sense and diseased organic processes."

"It is essential," Nordau observes on another page, "to become habituated to Nietzsche's style. This, I admit, is unnecessary for the alienist. To him this sort of thing is well known and familiar. He frequently reads writings (it is true, as a rule, unprinted) of a similar order of thought and diction, and he reads them, not for his pleasure,

---

*16 *Marzo*, 1900.

†*Blackwood's Magazine*, Vol. CLXII, 1897, and *Contemporary Review*, 1898.

but that he may prescribe the confinement of the author in an asylum. The unprofessional reader, on the contrary, is easily confused by the tumult of phrases."

This denunciation is, in my opinion, too sweeping if applied to Nietzsche's earlier writings, in which the style is much soberer and the connection more rational. Though paradoxical, one can hardly describe them as the effusions of a wandering mind. Sometimes, too, there flashes out an idea both original and true, clothed in language quaint and droll.

Those who wish to know more about Nietzsche's writings should get the two books of Henri Lichtenberger: *La Philosophie de Nietzsche*,* in which he gives an account of his life and a *resumé* of his opinions; and *Friedrich Nietzsche, Aphorismes et Fragments Choisis* (Paris, 1899), in which he gives in clear French out of cloudy German the best of Nietzsche's passages, selected out of what may be called the refuse.

Our task, however, is to consider Nietzsche as a case of mental pathology and to trace the steps of the descending process to the denouement. The first separate book which he gave to the world (at the end of 1871) was entitled *Die Geburt der Tragodie aus dem Geiste der Musik* (The Birth of Tragedy from the Soul of Music). In this work he brings out the correspondence which he had conceived between Aeschylus and Wagner. The chorus played a most important part in the old Greek tragedies, which thus resembled operas, like those of the German composer, founded upon old legends, more than ordinary dramas. Nietzsche thought that he had gained a conception of the character of the ancient Greeks through the few fragments of their literature. He caught glimpses of their joyous and natural life; but his own individuality was too intense to reflect the tone of bygone times, hence the book savoured strongly of paradox. Like most first efforts, it excited little attention save amongst the author's friends. Frau Förster-Nietzsche remarks that before its publication her brother

*This book has been translated intoIGerman by Elizabeth Förster-Nietzsche (Dresden und Leipzig, 1899). Frau Förster has added a preface of sixty-nine pages, giving some farther information about her brother's studies and the growth of his opinions.

had a good reputation, and had been offered places in Griefswald and in Dorpat; but, after *The Birth of Tragedy* became known in philological circles, there was a marked estrangement, a dull, painful silence, and no journal vouchsafed any notice of it. But Wagner and his wife were enthusiastic in their praises.

In the year 1873 Nietzsche attracted notice by a vehement attack upon a contemporary literary celebrity under the title: *David Strauss der Bekenner und Schriftsteller* (the avower and author), and later as *David Strauss and Other Philistines*. Surely Nietzsche might have seen an ally in the author of *The Leben Jesu* and of *Der alte und der neue Glaube,* but Strauss, though a foe of the Christian faith, was an optimist; so was Socrates, hence both the modern and the ancient philosopher were attacked by the pugnacious disciple of Schopenhauer. In quick succession there appeared under the title of *Unzeitmassige Betrachtungen* (Unseasonable Considerations) three more essays upon "*The Use and Disadvantages of History for Life*," "*Schopenhauer as an Educator*," and "*Richard Wagner in Bayreuth*."

In the skilful analysis which Nordau gives of Nietzsche's character there is one passage from which I must dissent, "that the real source of Nietzsche's doctrine is his Sadism." He is subject to erotomania, a veiled form of a psychopathia sexualis (*folie amoureuse chaste*). The few passages culled from the mass of his writings do not sufficiently support this theory, and from my own study of the same writings I have gathered quite a contrary belief. Amativeness seems to have been decidedly weak with Nietzsche. He coldly writes: "The best friend will likely be the best wife, as a happy marriage rests upon the talent for friendship," then further on, "On entering upon a marriage one should consider the question: Do you believe that you can well entertain yourself up to old age with this woman? Everything else in marriage is transitory," but the most time of their intercourse belongs to conversation. Evidently Nietzsche had no idea of the sweet sympathy of a loving wife, which goes far beyond friendship and conversation. Lichtenberger writes: "His only passion was the search for

truth; for every other object he only felt very moderate impressions. He was vexed later on that he never could rise to the passion of love; all his inclinations to a person of the other sex, however charming she might be, were soon transformed into a kindly and cordial friendship." Frau Förster tells us that there were physicians who thought that the cause of his headaches lay in his chastity: "They urgently advised him to marry; but for a man of the refined feelings of my brother, who thought friendship the best thing in wedlock, that was a painful reason for marrying. To sexual intercourse in another way my brother was averse." His friend, Freiherr von Seydlitz wrote: "Where lives the man who could show a stain in him? His life was pure and clear, like the water of a mountain brook." He makes Zarathustra say: "Never have I found the woman from whom I should have desired children save that woman whom I love, for I love thee, Oh Eternity!"

Nietzsche's remarks about women are commonplace enough and quite devoid of the affectation besetting European literature in treating of this subject, nor is there any trace of the unconscious gratification of the sensuous. Clearly, he had no dislike to women like Schopenhauer, though he looked with disgust upon the women who seek to escape natural vocations to compete with men. He would have women to remain in the place heretofore assigned to them, but neither oppressed or depressed.

In despite of his bitter and restless hatred of Christianity Nietzsche was averse to the idea of women becoming free-thinkers as something absolutely repugnant or ridiculous. This is a sentiment common enough in countries like France, where so many of the men are sceptics and so many of the women are Catholics.

Nordau says that Nietzsche's Sadism was confined to the intellectual sphere which he satisfied by ideal debauchery. But, though in his writings Nietzsche is often arrogant, abusive and profane, he is never obscene. Nordau was misled by the desire to label and classify a man who does not belong to a class, but who is a case *per se*.

In the essay upon history, the soberest of Nietzsche's

writings, there are some acute original observations. He pronounced that there was too large a dose of history in German education, and that the study of the records of bygone ages had a benumbing effect upon the mind, weakening the plastic powers of men and of nations. As substitutes he proposes the study of the unhistorical, things nearer daily life, not giving so wide a horizon, and of the over-historical, that is, art and religion. He denounces the superficial character of a modern education. The young man is made to gallop through history as he hurries through museums, and such a mass of unassimilable knowledge is heaped upon him that his only defence is indifference or the disgust of satiety. On the other hand, the writer of history takes a particular chapter of the past and works at it after a formal method. In the same way laborers in the sciences are early set to work upon a particular corner. They are instructed upon only one point; on this point they are better informed than the men of the past, but in all the others they are sadly different from the wise men of the ancient models. He derided the idea that history could be reduced to anything like a science. Its main use was to show some great men who, solitary, hail one and another through the intervals of time over the heads of crowds of dwarfs. "The knowledge of history should be made subject to the uses of life," and so it can be, especially to the life of nations, and in sustaining the spirit of patriotism. The danger of too much history is too fine a fear. It never appeared to me that your German doctors of philosophy were in danger of being crushed by the weight of their historical erudition, though they may be better versed than your English and Scottish M. A.s, which is easy. One of the uses of history comes to the point. It shows that every age has its own peculiar errors and that it is difficult for us to avoid being carried away by the current of them; thus history gives a standpoint where we may take refuge from the tyranny of the present. As Castelar said: "Those who look upon life from one side, upon time from one age, the doctrines of one's religion only, humanity from one people, will never understand the

human mind." Nietzsche had gained little from foreign travel, and he lived in an atmosphere which had been breathed and re-breathed by professors, students and artists. As Riehl* observed: "Nietzsche esteemed the influence of professors and learning upon the life of the times to be much higher than it really is. If Nietzsche had read something of history, he never understood its application, using it merely to illustrate his own notions. He saw himself and his own environment everywhere, as the gliding stream still retains the standing images of the trees which grow by its sides. When he talked of the struggle of incoherent ideas, of the chaos of strange knowledge, he drew this danger from his own feelings; as he himself said in the preface to the work upon the use of history: 'I shall not conceal that I have taken the experience which aroused these painful impressions, mostly from myself, and only from comparison of others.' As Frau Andreas remarks: 'What he found within himself that appeared to him a danger to the whole age, and later on rose to be a deadly peril to the whole human race which called on him to become their redeemer and rescuer."

In these early essays we find the beginning of two conceptions, the *genie-cultus*, or worship of genius, and the decadence theory, which play so large a part in Nietzsche's later speculations. Those whom he first delighted to honor were great philosophers, great teachers or great artists. In his book, *Menschliches Allzumenschliches*, he says: "The man of genius differs from the mass less through the difference of his nature (*Wesenverschiedenheit*), than through the openness of his nature (*Wesenenthullung*), through 'a divine nakedness,' a power of throwing off old habits and conventions, and old callosities and reacting to fresh impressions." If the great thinker despises men, it is their indolence which he despises. A man only requires to cease to mind his own ease in order to separate himself from the many. Thus Nietzsche recognizes at least potential greatness in many. "Artists," he writes (*Menschliches, 155*),

**Friedrich Nietzsche der Kunstler und der Denker, ein Essay von Alois Riehl.* Stuttgart, 1898. This is an able critical review of Nietzsche's life and opinions.

"have an interest in making men believe in sudden inspirations, as if the idea of works of art, of poetry, and the leading conceptions of philosophy flashed like a gift from heaven. In truth the fancy of the true artist or thinker produces good, middling and bad work, but his powers of judgment, highly sharpened and exercised, rejects, reflects and combines together, as may be seen from the note-books of Beethoven, that in composing his finest melodies he has gradually brought together and chosen them out of many pieces. All great men were great workers, unwearied, not only in finding but in rejecting, sifting, altering and arranging." In another place he says: "Cease to speak only of gifts, of inborn talents. Great men of all kinds might be named who are moderately endowed with gifts; but they all had that earnest of thorough work which learns first completely to form the parts till they dare to make a whole." Then again: "Men much overvalue everything great and prominent; extreme natures attract far too much attention." These sentiments have nothing of the vitriolic scorn which a few years later Nietzsche threw at the human kind.

Menschliches Allzumenschliches, ein Buch fur freie Geister (Human, all too Human, a Book for Freethinkers) was written at Sorrento, in the company of Wagner and other German authors. It was published in 1877, that is, before he gave up his chair at Basle. The book, which has nearly eight hundred pages, is made up of a series of aphorisms and short essays, after the manner of La Bruyêre or Rochefoucauld. It deals in a broken manner with familiar topics, such as morals, religion, art, culture, women and child. It is dedicated to Voltaire on the centenary of his death. Nietzsche's hatred to Christianity is bitter. He admits that it had a cleansing action on the corrupt old Roman world, though he says that it acted like poison upon the fresh Germanic peoples. The most amiable passage in the book is the following: "The best way to begin each day is on waking to consider whether we can on this day do a pleasure at least to one man. If this took the place

of the customary religious exercises, humanity would reap advantages from the change."

The following is characteristic: "We criticise a thinker the more sharply, if he advances an opinion displeasing to us; but it would be more reasonable to do this, if the opinion were pleasing to us."

In the *Morgenrothe* he says: "Some think that the reality may be hateful; but do you not think that the recognition even of the most hateful reality is a fine thing? Moreover, that he who often recognizes truth at last comes far from the notion that he will find the great whole of reality, whose discovery ever gave him pleasure, to be hateful? Two such thoroughly different men as Plato and Aristotle, considering what made the highest happiness, both agreed that it lay in the activity of a well exercised, searching and finding intellect."

No man who has prayed to God as the great Father of all can renounce his belief in Him without a sense of desolation. The atheist feels himself the chance product of something different; he stands alone amidst the senseless worlds of matter, the victim of the play of forces which have neither where nor whither. It was, therefore, not without deep sadness that Nietzsche came to think that religious education was all wrong. The very violence of his denials betrayed the tumult in his mind. We should scarcely repeat language shocking to a pious mind were it not to exhibit the workings of a self-torturing intellect which felt the need of leaning upon God and yet the impulse of denying Him. Frau Andreas emphatically says* that a right study of Nietzsche must be of a religious-psychological study, and it is only so far as this domain is cleared up that bright side lights fall upon the significance of his being, his sorrows and his self-worship. All the changes in his mind are referable to his lost faith, from the emotion over the "death of God"—that profound emotion which vibrates even to his last work and brought him to the threshold of delusion. Read the impressive outburst of feeling of the madmen in *Frohliche Wissenschaft*:

*Op. cit. pp. 38-39.

"Where is God?" he cried. "I shall tell you. We have killed him, you and I. We all are his murderers: Do we hear nothing of the grave-diggers who are burying God? How shall we console ourselves, the murderers of all murderers? The holiest and mightiest that the world has hitherto possessed has bled to death under our knives. Who will wash his blood from us? With what water can we cleanse ourselves? Is the greatness of this deed too great for us? Must we not become gods ourselves solely in order to appear worthy of it? There was never a greater deed—and whoever is born after us comes on this account to a higher history than all the former histories." By this wild language Nietzsche meant to say that the belief in God was dead. He reckons that the number of such unbelievers in Europe was about twenty millions. There is, of course, no trustworthy data for such an estimate, and it is foolish to assume that all who do not accept as historical truths the events related in the Gospels are atheists.

We have seen that Nietzsche suffered from migraine, with a diminution of visual power, darkening at times almost into blindness, with nausea and catarrh of the stomach. Migraine is a functional disease, not very liable to develop into deeper affections, and has none of the ominous significance of epileptic seizures. It is often accompanied by great depression of spirits, as was the case with Nietzsche, and sometimes, though rarely, it is the prelude of brain disease and of insanity. One word is frequently reproduced in his writings (*Ekel*) disgust, generally repeated thrice. He viewed all things through a perpetual nausea, as a sufferer from sea-sickness looks at food. "He that is giddy thinks that the world turns round." His sense of smell was morbidly acute. He hated the smell of human beings, the stink of the rabble of shopkeepers; even superior men did not smell nice. He deemed it foolish to feel indignant against wickedness, since men are but the tools of a blind necessity; but in his mind disgust was used to replace moral indignation. It seems to have been excited mainly by hypocrisy, religious faith and pety. It 1882 there came a modification of his sufferings, longer intervals of ease,

during which he felt the glow of recovered health. Wandering alone amidst the high valleys and mountain lochs of the Engadine, or by the sunny waters of the Mediterranean, he drank the joy of the earth's beauty and condescended to admit that the world might be justified as an aesthetic phenomenon. He found that grumbling about general infelicity only made him less able to support real pain; he felt that life was worth living, so he parted with pessimism and from Schopenhauer as a guide.

He thus pithily disposes of the formula so much used by that philosopher: *Wille zum Dasein.* "There is no such will: how could that which is not in existence will to exist? Only where there is life is there will; not will to live, however, but will for power." As he had parted from Wagner, he now thought that the time was come for himself to set up as an independent thinker and teacher. So, during his days of relief from headaches, volume after volume was written and given to the world. Though Nietzsche had few readers, this did not abate his huge self-conceit. In time the extravagance of his utterances and the arrogance of his style gained for him some followers. He boasts that he had readers in Vienna, in Copenhagen, in Stockholm, in Paris and in New York. In the preface to the "*Anti-Christian*" he proclaims that the book was written for the few, perhaps none of them yet live. "The day after tomorrow," quoth Nietzsche, "belongs to me. These alone are my right readers, my predeterminate readers. What about the rest? The rest are merely mankind."

Unhappily he was losing the faculty of concentrated and sustained thought; his books are now in the form of broken aphorisms, sentences in which we can trace the associations, sometimes of words, sometimes of ideas, unguided by sense or judgment. He utters Pythian oracular phrases, mixed with raving nonsense.

The deists of the seventeenth and eighteenth centuries, with one exception, while attacking Christianity respected morals; indeed, they were anxious to prove that morality would not be injured with the fall of revealed religion, and sought to show that the best moral precepts in the gospels

could be found in the writings of the ancient sages. Tindal, one of the most learned of the English deists, wrote a book to prove that Christianity was "as old as the creation." Volney, one of the learnedest of the French deists, wrote a catechism of the laws of nature, based on self-preservation, by which men were to be taught to lead virtuous lives. Whether duties were regarded as founded on the moral sense, sympathy, utility or the divine command, all inquirers, though working by different methods, brought out the same sum. There were discrepancies here and there; but on the whole the ethical code was recognized in its main features. The principal difference was in the view men and nations took of sexual relations, which are more or less based upon conventions and state regulations.

In 1714 Bernard Mandeville, a Dutch physician settled in London, published his *Fable of the Bees; or, Private Vices Public Benefits*, in which he sought to show that our notions of morality were originally contrivance of artful and ambitious men who, in order that they might reap the fruit of the labor and of the self-denial of others, and at the same time indulge their own appetites with less disturbance, agreed to call everything which, without regard to the public, man should commit to gratify any of his appetites, VICE, if in that action there could be observed the least prospect that it might be injurious or render himself less serviceable to society, and to give the name VIRTUE to every performance by which men, contrary to the impulse of nature, should endeavor for the benefit of others or the conquest of his own passions or the rational ambition of being good. Without any idea of a separate morality for each, Mandeville explains how the same ethical notions were rendered acceptable.

Taking advantage of some points in political economy not then clearly understood, and with the help of a lively and vigorous style, the free-thinking Dutchman made a plausible book which attracted much attention at the time, and which Bishop Berkeley and Adam Smith thought worthy of refutation. The *Fable of the Bees* was condemned by the presentment of the grand jury of Middle-

sex, and it was clearly licentious, though the author offered himself to burn the book should it be proved to contain anything tending to immorality or the corruption of manners. Mandeville is content with people's virtues, and their vices too, and his book is quite a reasonable production, compared with Nietzsche's reckless diatribes. There is as much difference between the Dutch physician and the retired German professor as between a thief who quietly enters your house to make away with your goods and a madman who bursts in to smash and tear everything.

There were, however, some signs which portended a re-examination of practical ethics. A serious disturbance of the moral persuasions of the time was made in the beginning of the nineteenth century by the Rev. Thomas Malthus, who showed the dangers of charity in keeping alive human beings who had been brought into the world regardless of the geometrical ratio of increase laid down by that political economist. It is well known that Darwin took from Malthus the formula of the survival of the fittest, to which he gave a new and wider application. By his speculations on the origin of species and the descent of man the English naturalist occupied a position which threatened many received beliefs in religion, philosophy and science, he brought many old problems within the domain of zoölogy and dissolved the cohesion of time-honored doctrines, as in the "Arabian Nights" the magnetic mountain attracted the nails away from the ship of Sindbad, the Sailor, so that the planks fell asunder, to be scattered by the waves. Apparently the Protestant theologians of today have shunned to declare war upon the views of the origin of man quite different from what they used to preach, and Darwin himself seems to have thought that his doctrine of the survival of the fittest was compatible with Christian morality.

Huxley, especially, soon pointed out how our democratic humane ideals ran in the teeth of what leads and has led to victory in the struggle for existence. How can we reconcile the maxim that it is good that the strong should survive with the help rendered by the state to the weak and unfit, enabling them to continue an unhappy being and

bring into the world children as weak, or weaker and more diseased than themselves? "Where," asks Mr. Tille,* "does man take the right to style this compassion for other's pain, this so-called unselfishness, a higher aim than the following of the natural process which leads to the elevation of the human species? In fact, with the aid of public and private charities, the weak are sometimes made more powerful than the strong who are forced to support them. Why not push the doctrine to its logical consequences? Force and Fraud have brought us so far in the ascent of the ladder of evolution, why should a foolish sentiment of pity interfere? Let us rather crush the weak, for it is good that the strong should prevail and take the room they encumber." As a general rule, however, the British followers of Darwin seem more bent upon evading these consequences than on proclaiming much less acting upon them. Huxley himself admitted that we cannot give up the defense and support of the weak without dissolving the bonds by which society is held together. Haeckel was content with recommending people to seek suitable partners and to avoid marrying into unhealthy families; but Tille proclaims Nietzsche as the philosopher who inaugurated a new morality, founded upon the doctrines of evolution. Tille observes that this valuable ethical discovery, which for the first time gave a clear survey of the ethical views of all times and races, was only possible for a thinker who placed himself upon the ground of biology. Tille, for his own part, proposes the abolition of inheritance, so as to give the strong an equal chance in gaining the race, and thus reaching positions to both the governing class and to the multitude.

I am not sure that the Darwinians will accept Nietzsche as the legitimate successor of Darwin. Two men more unlike never lived. Darwin was well aware that what seemed good for man individually might not be good for man collectively, and that the only way to raise the human type was to raise the whole level of humanity.

**Von Darwin bis Nietzsche, ein Buch Entwicklungsethik von Alexander Tille, Leipzig, 1895.*

In one of his earlier writings, the first "*Unseasonable Considerations*," Nietzsche pushed the logical consequences of the survival of the fittest against the humanistic views of Strauss; later on he styled Darwin an estimable, though mediocre Englishman. "Darwinism," he wrote,* "with its incredibly one-sided theory of the struggle for existence, is explained by Darwin's origin. His ancestors were poor and humble persons who were only too familiar with the difficulty of making two ends meet. Around the whole of English Darwinism there floats, as it were, the mephitic vapor of English over-population, the odor of humble life, of pinched and strained circumstances"—an absurd error, for Darwin was always in easy condition from inherited wealth. It seems to me, however, that Nietzsche was right in treating of the survival of the fittest as an insufficient explanation of the endless variety of structure found in animate beings. I believe that no system of morals which men are now willing to accept can be founded upon this hypothesis. We are not obliged to explain the origin of species upon the earth; but we must have some code of morals by which to conduct our lives. Moreover, one can reasonably admit the historical succession of living beings rising from the lowest to the highest organisms without being able to explain the causes of such an evolution. Frau Andreas tells us that as late as 1879 Nietzsche had a great admiration for English learned men and philosophers. In "*Menschliches Allzumenschliches*" they are still the complete, full and filling natures, and in a letter he names the English writers of the day as the only good philosophers, but, as Riehl tells us, towards the end of his career Nietzsche "came to hate unsympathetic England with his whole soul." This means that he found no readers for his crazy books in Great Britain. The eminence of a nation in philosophy depended upon the notice they took of Nietzsche. He thus made out that the French were much the greatest psychologists, after them the Russians; "the German flat land" stood low on the scale; England nowhere. Nietzsche had much admiration for French writers. He defended with

Die Frohliche Wissenschaft, s. 272 (published in 1882).

warmth the claims of Racine, Corneille, and Molière above Shakspere, and pronounced Voltaire to be the last of the great dramatists. Of British authors he most admired Sterne and Byron; but it appears he could not read our language fluently since he preferred German translations of English works.

In the *Morgenrothe* Nietzche takes a different view of the end of evolution from what he afterwards proclaimed. "Formerly," he writes,"they ought to sustain the sentiment of the lordship of man by assigning to him divine origin. This is now a forbidden way, for at the gates stands the monkey with other frightful beasts, showing his teeth as if to say, no further in this direction. Now they try the opposite way, the path on which man is advancing, for proofs of his relationship to God. Here also there is none; however high man has developed, and perhaps he will stand lower at the end than at the beginning, there is for him no passage to a higher order. As little as the ant and the earwig at the end of their earthly path will amount to kinship with God and eternity. The future drags the past behind it, why should it make an exception to this eternal drama for a little planet and a petty species?" It does not appear that Nietzsche's knowledge of zoology was anything else than superficial, but here he was right. Man from his structure seems to be the last of the vertebrate type which began during the paleozoic age in the prone fish and culminated in an erect body with a lofty forehead and a gaze that sweeps the horizon. One cannot see how the human organism can be more complete, and there is no proof that it has improved for twenty thousand years.

Also Sprach Zarathustra, (Thus spoke Z. *i. e.* Zoroaster) is regarded by Nietzsche's admirers as his most important work. One of them has called it the greatest poem which Germany has produced since the time of Schiller. It consists of four parts which came out separately in 1883 and 1884, so many leaves or chapters with little or no apparent connection with one another. Much of the best is in the form of aphorisms or oracular speeches. The author uses a great variety of words, piling synonym upon

synonym, and phrase upon phrase. Now and then there is a pithy remark which anon is spoiled by some bombast or nonsense dragged on to it. But it is impossible without specimens to give an idea either of Nietzsche's prose or of his verse, and for a foreign tongue this is difficult. The translator must have some sense in his mind ere he tries to render a passage. The reader will find attempts at doing into English some of the most incoherent passages from Zarathustra in Nordau's book on *Degeneration*. In Nietzsche's later works a want of measure and a want of taste prevades all his pages, often we can find nothing but a clatter of words. Though it has gone through at least three editions, *Also Sprach Zarathustra* is to me a most tiresome book.

It thus begins: "When Zarathustra was thirty years old he left his home and the lake by his home and went into the mountains. Here he remained in the enjoyment of his mind and his solitude, and for ten years was not weary. At last his heart changed and one morning he got up with the dawn and standing before the sun thus spoke: 'Thou great star! Thou wouldst be ill off if thou hads't not something to shine upon. For ten years thou camest to my cave and wouldst have been tired of thy light and way, without me, my eagle and my serpent. But we waited upon thee every morning, partook of thy overflow, and blessed thee therefore. See, I am overburdened with my wisdom like the bee who has collected too much honey. I need hands stretched out to me.'" We learn farther on that Zarathustra's chief companions in his cave were an eagle, the proudest, and a serpent, the wisest of animals.

Now and then these two creatures make philosophical remarks to Zarathustra in the style which no doubt they have learned from their master, and indeed in all the conversations the speakers use the same abrupt, cynical forms of expression as Zarathustra himself. Zarathustra determines "again to become a man," descends from his mountain, and falls in with an old hermit who tries to dissuade him from leaving the forest. "Rather go to the beasts. Why willest thou not be like myself, a bear amongst the bears, and a bird amongst the birds?" "And what does the holy man do

in the forest?" asked Z. The hermit answered, "I make songs and sing them, and when I make songs, I laugh, weep and mutter. So I praise God, etc. When Zarathustra had parted from the hermit he said in his heart: "Can it be possible this old saint in his forest has never heard that God is dead?" Zarathustra goes on and comes to the nearest town where he finds a crowd assembled in the market place to see a rope dancer perform. He at once addressed them: "I teach you something about the over man. Man is something that should be surpassed. What have you done to surpass him?"

All beings have done something beyond themselves and you would be the ebb of this great place and rather fall back to the beast than overpass men. What is the monkey to man? An object of laughter and scorn. Even so will man be for the over man, an object of laughter or scorn."

"You have traversed the way from the worm to man and there is still much of the worm in you. Once you were monkeys, now has man more of the monkey than any monkey."

Zarathustra goes on to preach the Gospel of the over-man whom he defines the thought (*Sinn*) of the earth. "I entreat you, my brothers, remain true to the earth and do not believe those who speak of hopes beyond the earth." They are mixers of poisons whether they throw it or not. They are despisers of life, dying men, poisoners of themselves, of whom the earth is weary."

He goes on with his discourse which naturally was not found agreeable to an audience assembled to see a rope dancer. In this spectacle Zarathustra sees an allegory; "man is a rope, stretched out between the beast and the over man, a rope over an abyss, a dangerous setting out, a dangerous passage, dangerous to turn back, dangerous to shudder and remain standing." He goes on with some more of this preaching, at which the people become impatient, and begin to laugh and mock him. Zarathustra said to his heart: "They do not understand me. I am not the mouth for these ears." He does not abide in his self-confidence. "Unmoved is my soul and bright like the mountain at noon." All eyes are now

turned to the rope-dancer whose cord was strung between two high towers. He had scarcely reached the middle of his passage when a buffoon comes out of the tower and after roundly abusing the rope-dancer, the mountebank followed him on the rope and with a devilish cry sprang over. How the clown managed again to gain a footing upon the other side of the rope is not clear, at any rate the unfortunate dancer lost his head, dropped his pole and fell quicker than it to the ground. Every one cleared from under except Zarathustra, who knelt beside the unfortunate rope-dancer, bruised, broken and unconscious. After a little he comes to himself, and seeing Zarathustra kneeling beside him, he said: "What are you doing here? I knew that the devil would get me. Now he is dragging me to hell. Will you defend me from him?" "Upon my honor," answers Zarathustra, "all that you speak of has no reality. There is no devil and no hell. Your soul will be dead sooner than your body. So fear no more." "If what you say be true," replied the man, "I lose nothing when I lose life. I am little more than a beast that has been taught to dance through blows and morsels of food." "Not so," answered Zarathustra, "for you have made your calling out of danger. On this account Z. promised to bury him. The market people walked off, leaving Zarathustra sitting beside the dead man. At length the night came, when the philosopher indulged in those reflections which some think so profound. "Zarathustra has caught a fine fish; no man but a corpse. Dismal is a man's existence, and ever without sense. A buffoon can bring him to destruction. I will teach men the meaning of their being, who is the over-man, the lightning out of the dark human cloud. I am still far from you, and my thoughts do not speak to your thoughts. I am a medium between a fool and a dead body. Dark is the night; dark are the ways of Zarathustra. Come, you cold and stiff comrade. I will bear you hence, where I will bury you with my hands." Zarathustra then takes the dead body on his back; the buffoon steps up to him and whispers in his ear, warning him to leave the place, where he was not liked. At the gate of the town Z. meets the

grave-diggers, who held a torch to his face and jeered at him. Zarathustra made no reply and walked for two hours in the forest. He heard the hungry cries of the wolves, and seeing a solitary house, knocked at the door. An old man appeared with a light. "Who comes here to disturb my bad sleep?" A living man and a dead one," answered the philosopher. "Give me something to eat and to drink. I forgot about it during the day, but he who feeds the hungry, quickens his own soul; such is the voice of wisdom." Satisfied with this profound explanation, the old man soon came back and gave Zarathustra bread and wine. "It is a bad neighborhood for hungry people," observed the hermit. "On this account I live here. Beasts and men come to me. But call your companion to eat and drink; he is wearier than you." Zarathustra answered, "My comrade is dead. It would be difficult to make him eat." "That won't do," said the old man, in a surly tone, "he who knocks at my house must take what I offer him. Eat and walk off." It seemed unreasonable to be discontented because a dead man would not eat; but the reader has, perhaps, by this time begun to doubt whether any of these people are of the reasonable, though of the reasoning sort. Zarathustra now takes up the dead body and bears it another two hours into the forest. Though apparently he had no other luggage, he was wearied after carrying this uncomfortable load for four hours. He laid it down on the moss, and slept till noon of the next day. Then Zarathustra heard the sharp cry of a bird, and overhead was his tame eagle, carrying the snake round his neck, who now approached him and kindly inquired how he did.

Zarathustra gets disciples, with whom he emigrates to the Fortunate Islands, which after a time he quits to wander about the world. He then returns to the cave, where he was joined by the eagle and the serpent.

One morning Zarathustra, springing from his couch like a madman, cried out with a fearful voice and behaved as if some one still lay on the couch who would not get up. Zarathustra's voice so resounded that his animals seemed to him afraid, and from every hollow and hiding place

about the beasts were aroused, creeping, jumping, flying, fluttering, with feet or wings, as the way of each was.

But Z. spoke these words: "Mount, abyssmal thoughts, from my depth. I am your cock and morning horror. Up, up, drowsy worm. My voice ought to crow you awake. Unloose the fetters from your ears. Hark! Then I shall hear you. Up, up. Here is thunder for the grave, to learn to listen. Wash away sleep, and everything stupid and blind from your eyes. My voice is a remedy for the born blind, and if you be once awake, you will always remain awake for me. It is not my wont to waken up great-grandmother and then to tell her to fall asleep again. You rouse yourself, stretch yourself, gurgle. Up, up, do not gurgle, but speak to me, Zarathustra, the godless, calls to you. I, Zarathustra, the advocate of life, the pleader of suffering, the pleader of the circle, I call you my deepest thought. Hail to me; thou comest, I hear thee. My abyss speaks. My last depth have I turned up to light. Hail to me. Forward! Give thy hand. Let go! Ha! ha! Disgust! Disgust! Woe to me!" Scarcely had Zarathustra spoken these words when he fell down like a dead man and remained long like a corpse, and when he came to himself he was pale, trembled, lay prostrate and would neither eat nor drink. During the seven days that Z. thus remained prostrate in his cave we are told that the faithful creatures never left him day nor night, save that the eagle sometimes took flight to seek food. When Z. came to himself he found his bed covered with grapes and other delicacies, and at his feet two lambs which the eagle, with trouble, had torn from the shepherds.

In the fourth part years are supposed to have passed, and the hairs of the sage have whitened. The fame of his wisdom brings to his cave an interesting circle of "superior men" out of employment, one retired pope, two retired kings with their traps upon a donkey, an old magician, the ugliest of men, the shadow, the voluntary beggar and the man of scrupulous mind who has devoted his life to the study of the brain of the leech.

These gentlemen take up their abode in the cave with

Zarathustra, though he sometimes treats them cavalierly and lectures them unmercifully. Forgetting the peculiarities of the host, they indiscreetly indulge in a little distraction of their own, which is thus related. Zarathustra's ear was suddenly startled. The cave, before full of noise and laughter, became all at once still, and his nose sniffed a fragrant odor of the burning of fir cones. He stole to the entrance so that he might see his guests without being himself noticed. But wonder upon wonder. What must he see with his own eyes! They have all again become pious; they are praying; they are mad. And insooth all these higher men, the two kings, the retired pope, the wicked wizard, the voluntary beggar, the wanderer and shadow, the old soothsayer, the scientist and the ugliest man, all lay like children and believing old wives, upon their knees, and worshipped the ass. Likewise began the ugliest man to snort and blow, as if something unspeakable was coming out of him; but when it came to words, see, there was a rare pious litany to the praise of the adored and incense-fêted ass.

Amen! And glory and honor and wisdom and thanks and praise and strength to our God from eternity to eternity.

To this the ass cried I—A.

He bears our loads, he took on himself the form of a servant, he is patient of heart and speaks not, and he who loves his God chastises him.

But to this the ass cried I—A.

He speaks not to the world which he created, he always says yes. Thus he glorifies his work. It is out of his cunning that he does not speak, so he is seldom in the wrong.

To this ass cried I—A.

Humbly goes he o'er the earth. Grey is the color in which he hides his worth; what intelligence he possesses he conceals; but everyone believes in his long ears.

To this the ass cried I—A.

What hidden wisdom is it that he bears long ears and always says aye and never nay. Has he not created the world in his image, namely as stupid as could be?

Thus it goes on for half a page or more.

At last Zarathustra could no longer restrain himself, he sprang amongst his guests, plucked them up from their knees and remonstrated with them for their stupidity. To this they severally gave foolish answers. This impious rant like the abuses and curses which come from a maniac was intended to give vent to his own wrath and provoke and shock others. At the end of the chapter the ugliest man says: "Once I learned from thee, oh Z. that he laughs who will kill outright. Not with rage but with laughter one kills. So spoke you once, oh Z. you hidden one, you destroyer without anger, you dangerous saint, you are a rogue.

And thus Nietzsche flattered himself that he had slain religion with his subtle wit. He thought to continue the work of Voltaire whom he pronounced to be a great master-mind, "just what I am," he added.

Here is something tasteful from the German Voltaire, "To the pure all things are pure, so says the people, but I say to you. To the swine is everything swinish." (*Dem reinen ist Alles rein, dem Schweined wird Alles schwein*) therefore the fanatics and hypocrites whose heart is also law (*Kopf-hanger denen auch das Herz niederhangt*) thus preach. The world itself is a filthy monster (*Ein Kothiges Ungeheuer.*)

For all these are of an unclean spirit; but all those who have neither quiet nor rest they see the world from behind, the behind worldlings.

To them I say in their faces, although it does not sound well, "The world is like to men in this that it has a kinder part, so much is true. In the word there is much filth! So much is true. But the world for all that is no filthy monster. Here is wisdom that much in the world smells badly; disgust makes wings for itself and steam foreboding strength.

"In the best there is still something of disgust, and the best has still something of disgust, and the best has still something which must be overcome. Oh my brothers, there is still much wisdom in this that there is much filth in the world."

Here is an attempt at an amatory passage which for

an author accused of erotomania is pretty flat. One evening went Zarathustra with his young people through the forest and comes upon a green meadow, in which some girls were dancing with one another. When the girls recognized Zarathustra they ceased dancing. Z. stepped forward with friendly gestures and spoke these words, Do not stop dancing, you lovely maidens. No spoiler of play has come to you with evil eye, no girl's enemy. I am God's advocate before the devil; he is the spirit of heavenness. How should I, you nimble ones, be an enemy of godlike dances, or of girl's feet with fine ankles. It is true I am a forest and a night of dark trees! but he who sees into my gloom finds clusters of roses under my cypresses, and he will find a little god that is dearest to girls lying beside the fountain with shut eyes. In truth he fell asleep in bright day; the day thief has tired himself with catching butterflies. Do not be angry you beautiful dancers if I chastise the little god a little. He will cry and weep, but mingle laughing with his tears, and with tears in his eye he will ask you to dance and I myself will sing a song to his dancing. And so Cupid after being whipped, where and how is not mentioned, dances with the girls, and Z. prints his song which is in prose, neither rhyme nor reason.

Lichtenholder tells us that the poem of Zarathustra was never completed. The author proposed that the philosopher should perform a grand act of effacement in giving birth to the over man. We are not surprised to learn that Nietzsche found difficulties in coming to particulars about this process. It recalls the bull of Castlereagh in the House of Commons. "The Herculean labor of the honorable gentleman; but the gentleman will be surprised when he has brought forth his Hercules." From 1882 to 1886 he sketched five plans for the denouement, but was not satisfied with any of them. In the last plan Z. conducts his disciples always higher, passes his grotto, ascends the mountains, he blesses the tombs, the isles, and the caves. It seems as if his face reddened slightly (perhaps a faint blush) then he shook his head (he well might) voluntarily shut his eyes, and died, and so ended Zarathustra, the insufferable.

Those who sum up Nietzsche's views in a consecutive form give him a great advantage, at least in the eyes of those who have not tried to read his works in the original unshapely form. Although he had a few leading ideas, he could not be said to have a system of morals worked out by induction or deduction. As for assigning plausible reasons for what he arrogantly asserted, he had got far beyond that, and many inconsistencies start up in the same books and even in the same page. In the *Menschliches* he accepts the morality of the day which later on he stigmatises as injurious to the loftiest types of humanity as he observed. "The serpent that cannot change its skin perishes and the minds who are hindered from changing their opinions cease to be mind at all."

He was very proud of what he called the inversion of moral values, in which the old virtues were turned topsy-turvy and some of them were changed into vices. The first men who dictated a moral code were warriors and conquerors, with them good and right meant to be strong, hardy, courageous and severe. They were true to another, but to the subjugated mass below them there was no obligation save the will of conqueror. Bad meant to be weak, mean, abject, and cowardly. The vanquished looked upon these qualities from a different point of view. It was the Jews who constructed a "slave morality" in which the cardinal virtues were humility, pity, forgiveness of injuries and patience; the worst vices pride, violence and cruelty. They looked to another life for redress for the miseries of this world. Conscience was but a manifestation of the suppressed desire for cruelty and revenge, turning upon and tormenting itself.

Christianity, he assures us, was an invention of the Jews, a subtle attack upon the "master morality" of the Romans. "Jesus of Nazareth," he writes "the embodied gospel of love, the Redeemer bringing blessedness and victory to the poor, the sick, and the sinful; was he not the reduction in its most uncomfortable and irresistible form of the Jewish change of moral values and renewal of ideals?" Has not Israel, goes on Nietzsche, by the round about way of this Redeemer, this seeming adversary and destroyer of Israel, actually

reached the final goal of the sublime quest for revenge? Does it not belong to the secret black art of a truly grand policy of vengeance, of a far-sighted, underground, slowly-grasping, calculative vengeance, that Israel itself should deny the very tool of its vengeance, before the whole world, as something to which it bore a deadly hatred, and should nail him to the cross in order that the whole world, *i. e.*, the enemies of Israel, might thoughtlessly bite at this very bait? Nietzsche based these unheard of doctrines upon some frail speculations on the derivation of the oldest words for good and bad, and upon a transparently false rendering of history for the Jews at the time of the origin of Christianity, though they shared the fate of the rest of the world in acknowledging the supremacy of Rome, were far from being a down-trodden or broken-spirited people. As a nation they rejected the Gospel of Jesus and continued to indulge in dreams, not of meekness and submission, but of a Messiah who was to come with might and make the Children of Israel rulers of the earth. The doctrines of submission, charity, pity and renunciation extended to all living creatures, had been preached in an extreme form six hundred years before the Christian era by Sankya Muni, the founder of Buddhism, who was not a slave or a low man, but of the *Cshatriya*, or warrior caste, and the son of a king. Of this, as a historical fact, Nietzsche was well aware, but, like a man in a dream, his mind was not startled by incongruities. As the maniac whets his wrath in violent words and threats, Nietzsche delighted in hurling obnoxious opinions at men and in contradicting their fondest beliefs in the most provocative terms. He boastingly calls himself Nietzsche the Godless, and Nietzsche the Immoralist, and at last arrived at the formula of the assassin: "Nothing is true; all is permitted save mercy to the weak." His chief commandment was: *Werdet hart*. Be hard, suppress pity. The criminal type, he wrote, is the type of the strong man under favorable conditions, whose virtues are condemned by society. Nevertheless, we know that the habitual criminal is not so strong as the normal members of society.

For what he believed to be the truth Nietzsche had professed steadfast devotion. For the right of proclaiming it he had given up the faith of his fathers, his belief in God, the hope of a future life, the good will of many friends and the morality common to the whole world. At last he came to doubt whether truth itself was of any value. "The falsehood of an opinion," he wrote, "is for us no objection to it. The question is, How far does it uphold life? It is possible that a higher value may be assigned to appearances, to the will to deceive, than to what is true. It is even possible that the worth of a good and honored thing may consist in its being entangled or hooked on to something bad. It is the power of sustaining a lie which lifts the artist high above the scientific man and his search for truth." We may, perhaps, grant that if the world be constructed on a reasonable and coherent plan, the finding of truth will be useful, but if it be a mere chance product of unconscious forces, a knowledge of the reality of things may be something unpleasant.

In the birth of tragedy (1872) Socrates was denounced as the prime factor in the decadence of the Greeks. It was he who by his perplexing questions spoiled the simple, heroic life of Hellas. Formerly the Greeks followed their instincts, did what they had a mind to, which of course was right; whereas, Socrates introduced a taste for dialectics, and caused them to reflect upon what they were doing, which was wrong. He introduced a bad system of philosophy, which has come down to our own times. In the "*Wanderer and His Shadow*," written seven years after, Socrates had come into great favor. Nietzsche looked forward to the time when men would rather take the *Memorabila* of Xenophon in hand than the Bible. To Socrates lead all the streets of the diverse philosophies. He directed men's thoughts to the pleasures of life, and had something to suit all temperaments. Compared with the founder of Christianity, Socrates had a light vein in his seriousness and that wisdom full of strokes of comedy which constitute the best mental condition in man. Moreover, he had more understanding.

Nine years later the emeritus professor of philology published an essay on the problem of Socrates, in which detection came at last. The wisest of the Greeks was a monster, a decadent, a typical criminal. He came of the lowest people; he was vulgar; he was a merry Andrew, he was very ugly, a rare thing with his countrymen; perhaps he was not wholly of Greek descent. Socrates and Plato were false Greeks, Anti-Greeks. A stranger who was skilled in physiognomy, when he saw Socrates, said that he was a monster who concealed all bad vices and desires. This, Socrates admitted, though with qualifications, which Nietzsche does not mention. The Socratic morality, like the Christian morality, was a misunderstanding, so, after all, Melitus and Anytus were right, and Xenophon was a fool.

Richard Wagner at Lucerne had enjoyed the admiration of his young friend all the more that Nietzsche had given much time both to the theory and practice of music. If he thought that Wagner was destined to be the tone poet who was to restore the grand old Greek drama, he himself was to be the philosopher of the new era. In 1876 Nietzsche accepted a pressing invitation to Bayreuth, where he found the composer much favored by King Ludwig II, and the center of an admiring throng, directing the rehearsals of the Nieblungen Ring to a large company of actors, choristers and players in the orchestra. Nietzsche was observed to be sad and taciturn. He looked embarrassed when they spoke of the pamphlet in praise of the master, which he had published five weeks before. The new opera was not to his taste. He now discerned that the real Wagner was not his ideal one. He was displeased with the mystical tendency of the composer towards Catholicism. As he expressed it, Richard Wagner, apparently in the full career of victory, but in truth a rotten, despairing decadent, suddenly sunk, helpless and broken before the Christian Cross. Was he, he asks, the only one in Germany who suffered from this frightful spectacle which filled him with disgust at the idealized lying and weakening of conscience which had gained the victory over one of the bravest? They never met again. Wagner would not allow Nietzsche's

name to be mentioned in his presence, and Nietzsche shed tears by the Lake of Lucerne when he recalled the happy days of their former friendship. Twelve years after their separation Nietzsche published a bitter diatribe against the composer, who was now dead. Wagner was the modern artist *par excellence*, because he knew how to mix in the most seductive manner the three grand stimulants for exhausted nerves, brutality, artifice and innocence. Here we have Nietzsche's usual want of measure, for granting that Wagner's operas have an over-exciting effect on some susceptible people, the stimulus is too transient and too rarely renewed to cause any harm worthy of such violent denunciation, nor is there any danger of the creed or no creed of the most enthusiastic lover of the Wagnerian operas being altered by the fantastic religious sentiments of Parsifal.

For democracy socialism, the happiness of the greatest number, Nietzsche had an ostentatious scorn. He proclaimed that the mass of people should be kept in slavery. Mankind was merely a passing stage in the ascent of evolution. Their function was to generate the *Uebermensch*. This overman was but the shifting conception of a delirious brain; in turns an artist, a composer, a philosopher and lawgiver; in the end a warrior, strong as brave and pitiless as strong, a blond beast of prey, obeying all his instincts, and trampling on the rest of mankind, without the restraints of mercy and justice. As prototypes of the overman Nietzsche delighted to cite the treacherous murderer and poisoner, Caesar Borgia, and Napoleon Bonaparte, laying approving stress on the worst qualities of the Corsican. It was at once the duty and the destiny of humanity to sacrifice itself to half-a-dozen of this new species of great men, and Nietzsche himself, proclaimed the duty of self-abnegation to make way for the overman as his simian ancestors had made way for the human species. To the women he says, "Let it be your hope to give birth to the overman."

He dreamed of the day when Zarathustra would descend among men, when the grand noon would come, the hour when man would march joyously to his effacement to to give birth to the overman, the hour when all would be

united in a common will. "All the gods are dead, we now wish that the overman should live." Yes, but the religious sentiment still lived and fell down before the image of the overman. Nietzsche came at last to worship this hideous creation of his own fancy, not through fear as the Hindu offers sacrifices to Kali, the goddess of destruction, or as the Aztec tore out the hearts of his captives for an offering to Quetzalcotl; but as the triumphant being who has put his foot on the neck of mankind.

A weird fancy which was first broached as a paradox in the *Frohliche Wissenschaft* takes a serious form in the third part of Zarathustra. The sage's two domestic animals, the snake and the eagle, ventured to approach the subject. As these worthy beasts are as long winded as their master,we take the liberty of condensing their speeches. We know who you are Z. and what you must become: You are the teacher of the eternal return. We know you teach that all things will return during eternity and we ourselves with them, and that we have already lived countless times before and all things with us. As an hour-glass is turned again and again so we through eternity renew our existence in the greatest things as in the smallest. You would say I die and disappear, and become nothing. Souls are mortal like bodies; but the meshes of causes in which we are entangled still again return, you will come again with this sun, with the earth, with the eagle, with this snake, not to a new life or to a better life but to the very same life in every particular, great and small. This dream of the destruction and the renewal of the world in successive cycles appears in the Indian mythology. It belongs to the infancy of philosophy in which imagination was the leader of reason. The notion once implanted grew and occupied Nietzsche's mind with the strength of a dominant idea. He thus sought to prove this myth. The forces which sustain the universe are fixed and determinate. If they had been diminishing they would have come to naught through the past eternity, nor can they have increased without some nourishment to draw upon. In the infinity of time it must happen that the same combination will not be repeated and

then this combination will inevitably bring after it the old series of events. But space is infinite as well as time, and though the play of forces may go on for ever, they will never bring about the same combinations.

In the *Anti-Christian*, his last finished work, (1886) Nietzsche gives vent to his hatred of Christianity without either argument or measure. "It is not respectable to be a Christian. Christianity is the worst kind of corruption, it means the neglect of common sense, gratitude, and regard for the public weal. Christianity and alcohol are the two grand agents of corruption. Christianity is the worm which comes in mist and night to suck out the desire for truth, the instinct for love, for death, the instinctive love for reality. This cowardly effeminate sugary sweet crew estranged the souls of the ancient world and led to the downfall of its civilization. Christianity was the vampire of the Roman Empire."

Much might have been expected from the Renaissance when some enthusiasts for ancient culture actually talked of restoring the old gods. On this subject Nietzsche has the following wonderful passage: "Caesar Borgia as pope. With that Christianity was abrogated. What happened? A German monk, Luther, came to Rome. This monk with all the revengeful instincts of an unsuccessful priest mutinied in Rome against the Renaissance. Christianity sat no more on the papal throne, but life, the triumph of life, the great yea to all that was high, beautiful and daring, and Luther lifted up the Church anew. He attacked the Renaissance,a senseless thing done in mere wantonness."

What a vicious jumble of history and nonsense have we here. Caesar Borgia never was pope, after getting his brother murdered, he threw off the habit of an ecclesiastic, and became the armed tyrant of the Papal States. On the death of his father, Alexander VI., he was chased out of Italy and perished in a skirmish in Navarre, four years before Luther came on a pilgrimage to Rome, and ten years before he broke with the Pope Leo X., about the sale of indulgences. It was the Renaissance that lighted the way to the Reformation.

Nietzsche declares that Islam had a right to despise Christianity which ruined the fine culture of the Moriscos as it had destroyed the culture of the ancient world. He says that Buddhism is a hundred times truer, and has more objective reality than Christianity. He finishes the *Anti-Christian* with these words:

"I shall write this eternal impeachment of Christianity upon all walls where walls are. I have letters which will make the blind to see them. I call Christianity the one great curse, the one great, inmost depravity, the one great instinct of revenge, to which no means are venomous, stealthy, underground, petty enough. I call it the one lasting stain on humanity. And they reckon the time from the *dies nefastus* on which this fatality arose. From the first day of Christianity! Why not rather from its last day? From today? The inversion of all values." In the same volume he thus finishes the "*History of an Error:*" mid-day, the moment of shortest shadow; the end of the longest error, the highest point of humanity! *Incipit Zarathustra.*

To criticise such notions would be like drawing the sword upon a still-born infant. The reptiles of the Jurassic "tore each other in the slime," and the panthers, wolves and hyenas of the Tertiary ruthlessly pursued their prey and left the hurt and feeble of their kind to die, but with man pity was born, compassion and help for the weak and mercy for the vanquished. Man rose above other creatures, not by obeying his instincts, but by subjecting them to his reason, by regulating and restraining them. Men became the lords of creation, not by warring on their kind, but by gathering together to act for common objects, by collective help and mutual trust; and this mad speculator would make it the duty of mankind to resign themselves to be effaced by a new being who should go back to the brutes, as if it were the duty of any creature to yield without a struggle in the battle of the survival of the fittest. Civilization does not make men weak and tame, as Nietzsche asserted; but by teaching them to concentrate and direct their powers it multipiles their strength a hundred fold, as a charge within the tube of a cannon will carry destruction for miles, while

if exploded in the ground, its effects would be exhausted within a few yards.

In some parts of Zarathustra the author imitates the style of the Bible or Koran. He evidently considers it a book which in the end would be read with devotion. Z. is the prophet of the second translation of values as Jesus is the first. Of him he thus speaks: "In truth he died too soon, this Hebrew to whom give honor the preachers of a slow death. It was a fatality that he died too soon. Jesus only knew the tears and the melancholy of the Hebrew, and the hatred of the good and just, and so the desire of death suddenly seized him. Why did he not remain in the desert far from the good and the just? Perhaps he would have learned to live, to love the earth and to laugh. Believe, my brothers, he died too soon. He would have retracted his doctrines himself, if he had lived to my age. He was noble enough to retract." Lichtenberger tells us that Nietzsche appeared to himself as both the destroyer and the continuator of the work of Jesus. Like him he had known solitude and suffering, and the hatred of the good and just, and like him, he is a fatality for innumerable generations to come. Through him Christianity should perish by self-effacement in giving place to something superior. During the last weeks of his conscious life this ideal relationship which he fancied between Jesus and himself presented itself to his mind with a clearness and evidence that was always increasing. There was produced in him, under the influence of morbid causes no doubt, an exaltation of his whole being. He felt himself happy, light, soaring into infinite heights above life and men. He believed his creative thought; it is all-powerful, and announces that in two years all the earth will writhe in convulsions. Across the ages he stretches the hand to his predecessor Jesus, whose work he completes in destroying it. He gives the title of *Ecce Homo* to his autobiography, written during the autumn of 1888, at the moment when the abyss of madness opens suddenly before him. He signs his last letter to Brandes "The Crucified One."

It is too bold that his admirers should persist in repeating that Nietzsche passed from sanity to insanity without any transition. As we have seen, his derangement was of slow growth, though the bounds of external restraint may have abruptly given way, so that his madness became manifest even to the ignorant. It should be borne in mind that Nietzsche led a wandering life, with no one to observe his doings. His sister had gone to Paraguay with her husband in 1880. His letters to her were full of heart-rending complaints against the want of love, the universal ingratitude and the vileness of mankind (whom he ostentatiously pretended to dispise). There were bitter charges against his friends and reproaches against her husband for taking his sister so far away. After the death of her husband Frau Förster found amongst his papers a letter in which Nietzsche accused him of writing a critique against him and getting it published anonymously, and of having poisoned the mind of his sister against him. He added: "I am taking hypnotic upon hypnotic, but cannot get sleep. Today I shall take so much that I will lose my understanding." His sister attributes his insanity to attacks in the public press, to the strain of overwork from his ceaseless writings and to the excessive use of chloral. He never used opium. The sleeplessness was probably due to arterial degeneration which must have been going on in the brain.

Of his private conduct or nervous symptoms during those years we have no precise information.* We know that he parted or broke with most of his old friends, and that some may have shunned him, owing to the extravagance of his opinions. In 1887 he writes to his sister, "Life becomes heavier from year to year. The saddest and the most painful did not seem to me so dismal, so void of hope as my present existence. What has

*Dr. Türck has a story that while staying at Sils Maria, in the Engadine, Nietzsche used to sit and meditate on a tongue of land which ran into the lake. Returning one spring to his beloved mountain solitude, he found that a bench had been erected on the spot for the convenience of visitors; he turned away, never again to put his foot on the spot. My friend, Dr. W. R. Huggard, who is a resident physician at Davos-Platz, caused inquiry to be made about Nietzsche at the time of his death. He writes to me: "Very little appears to be known here as to his residence in Sils Maria. He seems to have passed a very quiet life there, without making his crankiness conspicuous to the world."

happened? Nothing but the inevitable. The differences which separate me from all the men who have given me their confidence are patent, and from one side and the other one notices that he is despised. Oh heavens! how solitary I am to-day. I have no one with whom I can laugh, no one to drink a cup of tea with, no one who will give me friendly consolation." In 1888 he writes, "During ten years no one in Germany has made it a conscientious duty to defend my name against the absurd conspiracy of silence under which it is buried." This is a not uncommon delusion with authors who believe that nothing short of a plot is capable of a keeping their books from bursting into celebrity.

What was apparently the first open outburst of insanity is described by Frau Förster in a paper entitled *Die Krankheit Friedrich Nietzsches* in the *Zukunft* of 6th January, 1900. In Turin about the end of December, 1888, he fell down at the gate of the house where he was living. On being assisted into the house he lay on the sofa motionless and speechless for two days. On coming out of this lethargy he spoke in a loud voice to himself, sang and played much and noisily and showed that he had lost the proper knowledge of money, paying for trifles with twenty-franc pieces. He covered some sheets with writing, full of strange fancies, mixing up the characters in the Greek mythology with personages in the Gospel and those of our own time. He accused some of his nearest friends of injuring him. He fancied that God, torn to pieces by His enemies, was wandering by the banks of the Po. During this time he signed his letters *Dionysos* or *Der Gekreuzigte*. One of these letters having reached Professor Overbeck in Basle, he travelled to Turin in the first week in January, and finding his friend quite insane he took him to Basle, from where he was soon removed to the private asylum of Dr. Binswanger, at Jena, where he remained for sixteen months. After this his mother took him to her house at Naumburg, where he was affectionately tended by her and his sister, now a widow. On the mother's death Frau Förster took him to a house at Weimar. The first excitement calmed down within a year; but the hopes of recovery kept up by

occasional rallying were dashed by repeated paralytic attacks (*Schlaganfalle*). Frau Förster tells us that the physicians styled his malady an atypic form of paralysis (*eine atypische Form der Paralyse*). There seems to have been some degree of aphasia, and it was difficult to say in the end how much intelligence was left. Lichtenberger came from Nancy to see him and staid a week. "Perhaps," says his admirer and commentator, "here he has preserved a vague memory of his life of thinker and poet. 'Have I not myself written good books?' said he, when they put into his hand a new book. At any rate he is conscious of the affection with which his sister surrounds him; he follows her with his eyes when she comes and goes, and it is touching to see when she comes to sit beside his couch the awkward and slow action with which he manages to take the hand of that sister formerly the confidant of his youth, now the last consoler of his years of decline."

He who had scorned mankind had sunk below the lowest; he who had told men to banish pity from their hearts had now in his helplessness to depend on the pity of others, and while he lay in a state of death-in-life, his mischievous writings were scattering the germs of moral evil wherever they lighted upon a fitting soil. While this paper was being completed Friedrich Nietzsche died on the 25th of August, 1900. According to a correspondent of the *Kolnische Zeitung*, who was with him at the last, he succumbed to an attack of cerebral hemorrhage which had supervened twenty-four hours before. The tender care of his sister had tided him over a similar seizure about three months earlier.

From the obituary notices in the principal French, German and English newspapers it appeared that Nietzsche's views were known at least, to journalists. A writer in the *Berliner Tageblatt*, who went to Weimar to see what remained of Nietzsche after eleven years' insanity, compares him with Goethe and Bismarck. He was buried in the resting-place of his fathers near Lützen. The pastor was absent; a layman pronounced the funeral oration.

Nietzsche has left a number of manuscripts, the publi-

cation of which is threatened, though his works already form eight volumes. His admirers remark that the personal character of Nietzsche is an important part of his philosophy, and this we accept, though not in the same sense. His writings are only serviceable to indicate his mental aberration; as a contribution to psychology they are worth nothing. He never proves anything, never, indeed, tries to prove anything, contents himself with arrogant and absurd assertions. "My judgment," he writes, "is my judgment, and to this another man has scarcely any right." Nevertheless, he often changes his opinion. The devil himself would not have Nietzsche for an advocate. There is a progressive wildness, a deepening lack of restraint, a swelling conceit in each successive publication.*

Frau Andreas thus describes this literary anarchist's appearance during the period between 1879 and 1889, when his stormy writings were given to the world: "He is a man of middle size, plain but neat in his dress. His large forehead was rendered the more prominent by smooth brown hair brushed backward. The region of the head in front of the ear is large in proportion to the occipital portion. The lips are covered by a thick mustache. In his physiognomy there is an air of reticence, aloofness, strangeness. He had a quiet laugh, a noiseless way of speaking and a heedful, meditative gait, with a slight stoop. He had finely formed hands, of which he is proud." M. E. Schuré, who saw Nietzsche at the first representations of the Nieblungen Ring at Bayreuth, in 1876, describes him in much the same terms.† "The thick, hanging mustache and the bold profile might have given him the air of a cavalry officer had it not been for something at once timid and haughty in his approach. The musical voice and slow speech denoted his artistic organization, and his wary and thoughtful gait showed the philosopher. Nothing was more deceptive than the apparent calm of his expression; the

*Professor Theobald Ziegler, of Strasburg, who has pored through Nietzsche's works, line by line, in chronological order, finds the first signs of insanity in *Zarathustra* (written and published in 1883). 'In all the subsequent works he finds much that marks the overstrung, distorted, coarse and glaring, the loud and shrieking in increasing intensity.

†In *Revue des Deux Mondes*, 15 *Aout.*, 1895.

fixed eye betrayed the painful working of his thoughts. It was at once the eye of an acute observer and of a fanatic visionary. This gave him something unquiet and disquieting, especially as his looks seemed always fixed upon one point. In moments of excitement his looks softened, soon again to appear hostile." The expression in all the portraits given of Nietzsche is fierce and aggressive. One of the portraits given by Frau Andreas, a full front one, seems to be an evil face.

Frau Andreas lets us know, what would scarcely be expected from his writings, that Nietzsche was distinguished by a great politeness and almost feminine gentleness of demeanor. To use her own expression, he habitually wore a mask and mantle to cover an inner life scarcely ever revealed. He himself writes in the *Ecce Homo:* "To suffer from solitude is an inferiority. I have never suffered save from the crowd. At seven years, an age absurdly tender, I already knew that never a word of man would reach me. Have they ever seen me afflicted by it? Even today I have for all the same affability, I am full of deference for the most humble, and in all my bearing there is not an atom of pride nor of secret scorn. He whom I despise guesses that he is despised by me; with my simple presence I put out of sorts any one who has vitiated blood in his veins!"

In another place Frau Andreas tells us "wherever he speaks of lord and slave-natures one must be mindful that he speaks of himself." Driven by the longing of a suffering and unharmonious nature to its opposite, and moved by the desire to look upon such a one as his god he portrays his own self when he says of the slave: "his mind loves hiding-places, secret paths and back-doors, all that is covered he relishes as his own world, his security and his recreation, and in the practical, joyous, simple, lord-nature of the original men of action he describes his opposite." It is common enough for men to see their ideal in a character opposed in every respect to their own. We have for example, Thomas Carlyle, greedy of talk, lavish of words; a sceptic in most things, a man who never acted, and who was always fretting and grumbling about trifles, who took for

his heroes men of deeds rough and unscrupulous, of strong convictions, but fonder of using blows, than words. Or take Macaulay, healthy, cheerful, pleasant and vain, a fine talker, a book in breeches, who could not ride a horse or handle a gun; he chose for his favorite the sour asthmatic Dutchman, William of Orange, with no taste for literature, sparing of speech, but a daring rider, an intrepid general and a great statesman.

The unfortunate Neitzsche was born with an hereditary tendency to abnormal mental action; in infancy he was backward; in childhood he was shy and solitary; in youth he took no pleasure in the sports and amusements of young men but was quick at book learning and literary aptitude with a love for straying away from beaten paths. A careful education by a good mother helped to keep down his lower propensities, and the early dignity of a responsible position and academic surroundings made him give hostages to behavior. But he soon showed an irrepressible combativeness and an excessive self-conceit. The connection of the nervous sufferings with the mental derangement is not clear but no doubt these sufferings exasperated his mind and increased his discontent with life. Few men and only the best of men are made better by sickness.

This was the condition described as *Grubelsucht*, *folie de doute*, the anguish of doubt. Talking of the mental changes which lay behind him, Nietzsche once said to Frau Andreas, half in jest, "Yes, the course has begun and will go on—but whither? When all has been rung through whence will one start? When all possible complications are exhausted, what will follow? How? Must one not again arrive at faith? perhaps at a Catholic faith? In any case a circle is more likely than a standing still."

The restless working of his intellect was always accompanied by exaltation of the affective faculties, the power of correct reasoning slowly decayed and the bonds of restraint became weaker. His aggressiveness and egotism came more and more prominent. With no pole star to guide him he was insensibly drifted by the current of the desires and longings which he fancied were suppressed, and so it came

around that in place of the aspiration for a future life he accepted "the eternal return of all things" and for the religious sentiment he had the worship of that monstrous fantasy of his own mind, the 'over man.' The peculiarity of Nietzsche's insanity seems to have been that while he long retained sufficient powers of self-restraint to refrain from breaking through outward rules of conduct within his limited sphere of intercourse with other men, he gratified his extravagant propensities by writing reckless and provocative books against the beliefs which were most cherished by those amongst whom he dwelt. To use his own expression he philosophised with a hammer. As Byron said of J. J. Rousseau:

> "But he was frenzied by disease or woe
> To that worst pitch of all which takes a reasoning show."

We might inquire why books like those of Nietzsche which might be expected to shock even a not over-fastidious taste, should be so far relished as to pass through several editions and to become the subject of commentary of apology, and even of praise? No doubt there are literary *chiffoniers* who seeing that the public *will* have carrion to feed on, are eager to serve it up, and ready to also disguise too rank a taste by their own culinary arts, but they generally wait for some signs of a morbid appetite, before they fetch such wares to market. We are living in a time of great decline of literary taste. Something is due to the overpowering momentum of the many who now amuse themselves with reading. There are people leading outwardly decent lives who indulge in literary license, gratify the sensuous cravings in their nature by gloating over coarse descriptions and read filthy books for their filth. Apparently there is also a demand somewhere for philosophical profanity, and speculative immorality.

THE SUCCESSFUL MANAGEMENT OF NEURALGIA.

BY C. H. HUGHES, M. D.,
ST. LOUIS.

THE surgical treatment of neuralgia is a reproach to neuriatry and stigmatises modern neurotherapy with opprobrium. To give over the treatment of a morbidly affected nerve to the surgeon's knife is a confession of incompetency and a surrender to anatomical destruction.

The neuralgias are generally capable of remedy and the conditions that engender them are not ordinarily remediable by the knife. The neuropathic nerve state is usually a result and not a cause—and the cure is not complete when the nerve is removed, though the cure may follow the operations and conditions of relief, rest and recuperation which follow the surgery and with which the patient would not surround himself till he has consented to the necessary operation. The hope inspired, the anaesthesia, the operation, the freedom from pain, the break in the business, care or worry or grief. The more or less prolonged rest, and the entire break and changed environment in the life of the suffering neuralgic make a combination of favoring therapeutic influences which give us a valuable lesson of treatment in the direction of its treatment which ought to be put in practice, coupled with a proper and persistent medication, before at least some of the graver destructive and deforming operations should be undertaken. If we except those locally engendered forms of peripheral neuritic trifacial neuralgias which the sur-

geons recognize but which are by no means all the forms of trigeminal neuralgias the rapidly alternating forms are not of local origin.

There are many forms but few pathological varieties of neuralgia. Unique among them and requiring the distinctive treatment which only the thoroughly experienced alienist can best apply is the phrenalgia of the melancholiac, the pain of the sorrow bruised brain, the wounded in spirit and broken hearted, the hurt mind, morbid, black and dreadful, which requires distinctive and elaborate consideration and will not be here discussed. Nor will the varieties of cephalalgia, including the migraine, though the latter, in remedial aspect, may well be regarded in the light of some forms of ordinary neuralgia.

Our task to-day takes up the neuralgias that taunt the profession with its frequent failures in treatment, and we shall endeavor to outline for them the principles and prescriptions of their successful therapeusis.

First and most provokingly confronts us the so often intractable trigeminal neuralgia, then the neuralgia of the sciatic or sciatica, then the neuralgia of the labia, the ovaries and testes, the neuralgia of the heart with or without coronary artery implication, true neuralgic gastralgia neuralgic enteralgia and all the viscera (renalgia, cystagia, etc.,) which the surgeon can not reach, the neuralgia of the extremities, (plantar, palmar, *et id* orme genus).

We must learn to successfully treat them therapeutically *sans cuto*, for the surgeon can not reach them all with his destroying knife, and if he could, we should so master them by medication that the knife will not be needed.

In the consideration of this subject we take up first that form of algic neuropathic implication which all clinicians have conceded to be the most distractingly painful and which the daring surgeon like the dashing general likes most to attack, the neuralgia of the trigeminus and the therapeutic principles involved in its medical management will largely apply to the other forms, for in soul distracting and system shattering severity it leads all the rest.*

*Much of the matter touching the consideration of trifacial neuralgia was presented in the discussion on this subject before the St. Louis Medical Society, January 1901.

In its effort at radical remedy of this formidable malady bold and daring surgery has gone on step by step cutting off peripheral outposts until it has reached what it deems the morbid citadel of the disease within the encephalic sanctuary. If the peripheral operations fail to cure a case of trigeminal neuralgia, the formidable bloody removal of the Gasserion ganglion is performed, though Tiffany, Keene and Spiller as late as November 1898 (Amer. Jour. Med. Sciences) say twenty-two and two-tenths per cent of the recorded operations up to that date were mortal and Carson has found as late as October 1899 a mortality of twelve cases out of one hundred and one operated upon (Med. Weekly Review, Mar. 1899), and this exclusive of the recurrences of the neuralgia on the opposite side and elsewhere, of corneal ulceration, conjunctual and corneal anaesthesias, the loss of the eye, deafness, impaired deglutition, face deformity, hideous scars, bone necrosis, paralysis of the eye muscles and of mastication, changes of disposition and continued ill health and the insanities, which are not uncommon sequelæ.

Besides all this the pathology of trifacial neuralgia has not been located exclusively in the ganglion. Its paroxysmal and recurrent character can not be explained by a persistent lesion there, and such morbid changes as have been found, microscopically, in the Gasserion ganglion have been likewise found in the ganglia of the aged and are the result probably of the violent peripheral shocks transmitted to them through the violent molecular disturbances and advancing neuritis and continuous peripheral central shocks of pain in this disease, making the nerve center prematurely old and broken and diseased from its repeated horrible assaults. This view is confirmed by the well-known beginnings of so many of these attacks from aveolar osteitis, dental caries, rhinitis, cold, etc., to say nothing of the brain strain, worry, alcohol, syphilis, rheumatism, malaria, grippal toxhemia, profound anemia and that grave hyperemia which prompted Ricketts to tie the carotid for this form of tic. The general peripheral neural origin of neuralgia (supra-orbital maxillary, infranasal, etc.,)

strengthens the view that the envolvement of the ganglion is a secondary matter.

Discussing the operations for trigeminal neuralgia J. Chalmers DaCosta in the March 1899 number of *Progressive Medicine* says: "Before concluding that medical treatment is futile we should be sure that massive doses of strychnin are given after the method of Dana. In a recent case of violent tic in which we had determined to perform resection of the Gasserian ganglion, the strychnin treatment was employed by my friend Dr. Chas. S. Potts with the result that the pain ceased completely." To this statement I wish to add that this formidable operation should never be done for tri-facial neuralgia until after thorough trial of the many efficient resources of neurologic medicine applied by skillful neurologic hands and not alone by the surgeon or the general practitioner and particularly not until a thorough and heroic anti-malarial treatment has been employed in certain cases and if the history warrants, a complete syphilitic and anti-anæmic treatment, coupled with the heroic use of green root tincture of galsemium and the moderate but persistent employment of galvanism from the cerebral center to the peripheral, through the head and over each affected nerve tract with static electrization added through the system generally.

This view however is subject to future possible modification since it is based on the fact mainly of my own personal observation in which, during a period of forty years, daily practice, no case that I know of when I had a fair chance at steady treatment has passed from my hands to the surgeon and no case of which I have record in my own practice has failed of final relief under persevering treatment. Strychnin however, in large doses, has not been my main reliance, In moderate doses however (one-sixtieth to one fortieth of a grain), it has not in any case, I believe, been omitted by me or has atropin or belladonna been neglected. In fact I have had to withdraw the larger doses of strychnin, (as high as one twentieth to one tenth of a grain in anaemic form) where I had ventured to use them. The cases that tolerated best large doses of strych-

nin were those cachemic states of chronic malarial poi son-ing of the blood, viscera and nerve centers so often met with in these Mississippi, Missouri, Wabash, Gasconade, Desmoines, Illinois, Tennessee, Ohio, St. Francis and other river valleys and tributaries to this Mississippi valley region. My chief reliance in the management of all neuralgias especially in sciatica prosopalgia has been belladonna or its active principle atropin, aconite,strychnin, large doses of quinin, preferably the bi-sulphate and more recently hypoquinidol which is a phosphate of quinin. This treatment I have invariably supplemented with persistent galvanization of the effected nerve tracts with some form of bromid, the hypophosphites of iron and gelsemium in green root tincture for direct anodyne effect, with locally ether, menthol, heat and electricity. I have no faith in the asserted efficacy of any dry root preparation of gelsemium. I have used in many cases at the same time minimum tridaily doses of Fowler's solution or Arsenauro and such coal tar anodynes as may be indicated. In the progress of some cases I have found it necessary to employ large doses of muriate of ammonium after Anstie's method (30 grains ter die). And when I have done this, as I have quite often, I have blended it in an agreeable solution with the bromid of ammonium. The strontium and sodium bromids have likewise been of service to me for alternative treatment, the former with pepsin essence and pancreatin as solvent (Fairchild's preferred), but in England and with patients going abroad and to Paris I have used the officinal wine of the respective pharmacopoeias of these countries.

For local arrest of pain we should use menthol and camphor dissolved in sulphuric ether and chloroform and other anodynes locally hot or cold to suit the sensitiveness of the patient. I treat a neurologic patient all over, ascertain the possible causes of the disease and treat them and the entire patient. The nervous system is always out of order elsewhere than in the local pain tracts. Some of his disorder is precedent, some coincident and some sequent to the local neuralgia. All forms of neuralgia are sources of irritation and interfere with nerve rest or nerve repair.

The sensory nervous system too is generally shocked and it is out of repair in other parts. It is often toxically involved and molecularly disturbed and it must be treated in general as well as special. A new molecular activity must be set up and normal trophic changes established in the affected nerves and nerve centers involved and they must be soothed into their best state for repair and cure. Sensory nerve tranquility affords the best condition of repair to a damaged and painful peripheral sensory nerve as it does to an over-worked or over-excited or poisoned nerve center.

Neural metabolism has gone wrong in neuralgia, and metabolism elsewhere, and whether the disease we discover is the result or the cause of neuralgia or both, the nerve pain must be relieved to give the recuperative powers the best aid and chance.

Anstie thought anemia was the principal cause of neuralgia, especially tri-facial. It is undoubtedly often a causal condition, so are all forms of cachemia (septicemia for example) and many other varieties of toxemia, (alcohol, syphilis, uric acid, grippe, malaria and post febrile toxins.) The surgeons say cold and ascending neuritis, caries, etc., cause tri-facial neuralgia; so they do excite it, but it has other causes. The surgeon looks for local causes, constitutional causes do not so much engage his attention as they do the physician. His resource is the knife. He can not remove a diathesis. Nor is surgery the best resource for a neuritis or other inflammation. Ricketts, another surgeon would ligate the carotid, for to him tic douloureux is either a hyperemic or anemic state, most frequently the former and the ligation of this artery lessens the blood supply to the ganglion of Gasser (Jour. A. M. A. Oct. 16, 1897). The partial compression of the carotid on the side of the operation might be a good thing if cautiously and skillfully employed, as suggested to me by Dr. Meisenbach, to diminish hemorrhage during the operation. The danger of disturbing the cerebral blood equilibrium of circulation must be considered if this is attempted. The carotid should be cautiously and gradually compressed, if compressed at all.

In neuralgia a peculiar state of special aptitude of the nervous system exists either through heredity or later acquisition, which predisposes to the current paroxysmal features of this singular disease. There is a weakness and proneness of the sensory nervous system to become thus affected by cold, aveolar ostitis, dental caries, rhinitis, periostitis neuritis, worry, grief, bereavement or other local cause affecting the peripheral nerve ends. Disappointed ambition or financial remorse, syphilis, alcohol and post-febrile polyneuritis and the various toxaemic states already hinted at, can not escape our consideration in the management of the causative or complicating features of neuralgia, but I draw the line on uterine diseases as a direct cause.

Some of my patients have had a good deal of this treatment ineffectually before reaching me. I would as soon regard appendicitis as a cause. It might more likely bring it on if surgically neglected to septic infection and constitutional undermining.

Why does the peculiar paroxysmal neuralgia come on in one individual from the same causes that develop the persistent pain or tenderness of neuritis in another, or why does neuralgia coexist with the neuritis in one while another only has neuritis from the same cause? Evidently some peculiar molecular nerve alteration exists in one that does not in the other.

I will not say without qualification, that the Gasserian ganglion should never be removed but I do say, when we consider the gravity of the procedure, the loss to the patient, the shock, hemorrhage and accidents, brain violence ensuing from surgical manipulation in the dark, the chances of fatal issue, the after danger to the eye and ear, the recurrences and the chances of cure of neuralgia without the knife under proper persevering and persistent neurologic treatment, its removal should seldom be attempted and the decision to operate should never be made upon surgical judgment alone as to the efficiency and completeness of the previous medical treatment. The operation itself is a surgical procedure. The value of the treatment is a matter of medico-surgical judgment, based

upon the broadest clinical experience and most skilled neuriatric effort, and only the most thoroughly skilled surgeon, anatomically and dexterously skilled should attempt it. It is not a play for fame for the tyro chirurgeon. The centers of life in this formidable operation are close to the best wielded and directed knife. The best surgeon gropes in the dark in this operation. A few millimeters from the pontal emergence of the nerve root to be severed are the tracts and superficial origins of the third and fourth nerve in one direction and the course across the medulla of the sixth, seventh and vagus or tenth in another with the latter's important inhibitory relations to the vasomotor center of the cord and its connection with and influence over so many vital organs and processes, the cardiac, respiratory, laryngeal, pharyngeal, gastric, intestinal, etc., branches of the basilar artery are so near that they can escape only the skillful surgeon's knife. With all this and the tentorium to be cut, and the unavoidable venous hemorrhage, is it a wonder so many surgeons have to say, as Victor Horsley had to say concerning his first case in 1890 and the first case operated on by any surgeon, "unfortunately the patient did not survive the shock of the operation?" The shock of the operation is generally the brain and nerve bruising and lacerating, death dealing pressure, violence or other destruction of vital areas in this murderous delving in the dark with pressure of fingers, prick of scalpel, thrust of forceps, or clip of scissors so close by where the life source is centered. Were I a surgeon as I am a neurologist I am sure I would wish to traverse the dark and bloody ground at least just once, but I would try and find a way to get there with a chance for more light on my bloody way. Later surgeons are doing better as regards light, however, than former operators.

In such a contemplated grave procedure all neurologic and therapeutic resource should be exhausted. The neurologic clinician as well as the operative surgeon should then decide the question and the conclusion to operate should not be reached till neurology had failed.

The surgical records of the subsequent life history of

this operation are not so complete as one might wish to have them and recurrences on the opposite side of the face are not recorded as frequently as they occur. This fact of recurrence on the opposite side when the incision of the ganglion has been made complete is inexplicable on the theory that the fountain source of the trouble is always and exclusively in the Gasserian ganglion and how the trouble can recur on the same side,as one surgeon has stated, after a complete Gasserian extirpation I can not comprehend as a neurologist. Another fact noted by surgeons as a post operative sequel of this operation is insanity. The surgeons have recorded this as a sequence due to the operation but I have seen it occur in one case after recovery by electro-medical treatment. This patient had suffered for nine years, receiving gynecologic treatment *ad nauseum* all the time for endocervicitis, ulceration, sutured cervix, etc. When the pain finally ceased she passed into a state of acute delirious insanity from which she only emerged after about six weeks, treatment for her mental malady. She was then recovered of both her mental and neurologic troubles. I treated this patient about eight months. The recurring neuralgic shocks sent to the cerebrum maintained the patient's normal vigilance and kept the patient psychically alert. When pain ceased the delirium of the cerebral exhaustion set in, there being no longer the recurring arousing to consciousness. A long rest of brain and daily enforced sleep, reinforced nutrition resulted in her cure.

This subject has always been peculiarly attractive to surgeons Hartley, Andrews, Tiffany, Parkhill, Carson, Ross, DaCosta, Carnochen, Mears, Luecke, Krause, Horsley, Keene, Murphy and a host of others because as ordinarily treated it has been regarded as a medical *bete noire* and extirpation of the ganglion of Gasser has been looked upon as the inevitable *dernier ressort* of medical remedy. Victor Horsley's hope that excision of the Gasserian ganglion would prove a bar to the future progress of the disease, has not been realized, though the nerve and brain rest following the operation and the removal of the nidus of the disease in some instances with ganglion extirpation re-

moves a central source of irritation, while the loss of blood dissipates congestion for a time and gives further chance for the morbid irritation to cease and the post operation rest gives chance for the disturbed nervous system to regain its normal metabolism and that healthy equipoise which makes the peculiar pain of neuralgia an impossibility. Not only the sensory root going to the Gasserian ganglion, but the opposite side has become affected, nevertheless the surgeons maintain the operation to be a justifiable one. Dr. N. B. Carson, who read a valuable paper before this society February 18th, 1899, made the mortality appear about eleven per cent, a reduction in the death rate of about one-half since 1896. Carson's first case was attacked in November 1895 and operated on in August, 1898, was somewhat more irritable afterward than before the operation, had some paralytic sequelae but had no pain up to Feb. 1899 (though a typographic error makes the date appear 1898 in his paper.) A subsequent operation by Carson proved promptly fatal.

The technique is so well set forth in this paper of Carson's and in that of the essayist of last evening, Dr. Willard Bartlett, and in so many late works on surgery that I need not here reproduce it, at least *in extenso*. My objection to the extirpation of the Gasserian ganglion for tri-facial neuralgia is:

First. Because of the curability of the disease by medication if rightly and vigorously enough employed. It is curable in every case, I think, where sufficient vital stamina remains such as would withstand the ordeal of ganglion extirpation as practiced by any present operative method.

Second. Because tri-facial neuralgia is not a disease exclusively of the ganglion.

Third. Because it appears to be a disease not exclusively confined to the fifth nerve and when apparently so confined it does not stop at or begin in the ganglion of Gasser. It is a morbid state of the sensory nervous system with the characteristic trigeminal pain manifestations. It is and is not a local disease.

Fourth. Because medical effect equal to that of the operation may usually be secured by absolute rest and recuperation and restoration of the nervous system involved by other remedial measures. The brain is often chiefly at fault, in some cases due to bereavement, worry, brain fag, etc.

Fifth. Because of the trophic irritative or paralytic sequences to the cornea and face, the herpes, ear and jaw involvement, the ptosis and general fourth and sixth nerve paralysis, and finally as so often follows, the certain mortality of the operation in so many cases, the infection which so often follows the perforation of the antrum, a frequent accident of the operation, and the shattered health of many who survive the operation, would seem to forbid it.

The fact that power of tension of the tympanum comes from the fifth nerve and otic ganglion is not considered as it should be by surgeons contemplating this operation.

If I were the affected one and allowed to counsel and treat the patient I would advise against the operation in my present light and prefer even the relief of opium if nothing else sufficed, with the prospect of final, fatal euthanasia rather than to submit to the chances of this formidable and terrible procedure. I would rather prefer the constant current battery applied at every paroxysm and the constant smell of mentholated ether spray, a daily diet of gelsemium, ammoniummuriate and coal tar derivatives or to become a drug fiend in any form, than take my chances of being one of the twenty per cent of surgical science made immortals.

If I had continued in surgery as in the first decade of my professional career my ambition would probably have been as it is with so many of our surgeons today, to have scaled the neural heights to the summit of surgical possibility, to have gone beneath the tenent chamber of the highest neural life and have snatched, by skillful gangliectomy, this great ganglionic servant of the brain's sensory life and facial motion from its lair, so near to the pons variolus and the great centers of life and the great blood flow of the brain. But now, if I were a surgeon as

I am a neurologist, with the discerning warning of wider neural knowledge to restrain, I would advance with caution to the giddy heights of glory and destruction, in view of the indubitable fact that death to patient and damaged reputation to the surgeon, are too often the penalty of surgical temerity without due neurologic restraint.

Neuralgia means an individual with neural idiosyncracy to be treated, not alone a neural section of the individual's anatomy to be exsected. Before attempting this formidable operative procedure I would be assured that all the peripheral branches of this nerve had displayed the neuralgic trouble and that previous peripheral neurectomies had failed. I would be assured that neuralgias elsewhere, of other nerves and nerve centers did not alternate with the facial trouble, such as sciatic, femeropopliteal, ilioscrotal, mammary, plantar, brachial, angina pectoris, gastrodynia, etc. I would aim first to secure a change in the neuralgic habit by thorough neurologic observation and neuriatric treatment through hand accustomed to master these conditions. Surgery in this formidable condition should be the last resort of the highest neuriatric and medico-therapeutic skill, baffled and at bay, in its treatment.

The chronic neuralgic is a broken human neural organism to be made over; a human being to be thoroughly treated before we may safely say with our knives "out damned spot" and safely hope with them to be rid of all trouble. A neuropathic degeneracy, often awakened from latency into active mobid life, is often the bottom of the neuralgic habit which the knife may relieve, but may not eradicate. Peripheral surgery in local neural sources can be done in this form of neuralgia even while the constitutional treatment goes on and the patient should be treated to thorough nerve health after neurectomy.

If I should finally decide upon the extirpation of the ganglion of Gasser I would not esteem my patient cured because the pain ceased and the wound healed and life persisted, but would give him or her (and the case is more often a woman than a man) the best neurological after treatment. Neural and constitutional rebuilding to eradi-

cate, if possible, the neuropathic state and guard against the vicious vicarious return of this formidable malady in other sensory nerve areas, for while the tic douloureux is the most painful of all nerve diseases, its extirpation by the knife is not always the end of the patient's suffering, except in the nerve tracts and center destroyed.

This formidable operation is so daring and dangerous that it fascinates the surgeon to its performance. Modern surgery now displays skill hitherto unknown in any department of human technique and with antisepsis to assure immediate immunity from death, will not be barred from entering, for rescue, even the hitherto safe and sacred precinct of the vital centers where even the God-like mind may dwell. After this bloody procedure and the penetrations of the great cavities, with immunity we may say to surgery as Job said to the Almighty "We know that thou canst do everything." But what neurology wants to know of the surgeons is the full and complete record of the sequences of this formidable Gasserectomy.

Many surgeons in this as in other formidable and daring surgical procedures consider the operation a success when the victim survives the knife and the particular trouble for which the operation is performed does not reappear; whenever the undertaker has not reaped the operation's immediate or nearby fruition. What neurology would like to know of surgery is the post operative history of these victims of their skill. Neurology would like to decide from the standpoint of neurological observation some time after the wound has healed, how many have escaped other neuropathic display, vicarious neuralgias, vertigos, decadence and changes of mentality, not even so marked as commonly recognized insanity and death, not immediately but one year or more after the operation. Many lost eyes have been sequences of ulceration (as given by Keene, Krause, Tiffany, Kronleinn, Carson and others.) Other trophic changes result also, shock, brain bruises, nerves stretched, etc. The surgeons try to persuade themselves that only anaesthesia causes the destruction of the eye by permitting irritation and infection, but the eye would be

better resistive to destruction of irritation if in normal trophic condition. The shock of this operation, the lifting and disturbance of the under surface of the brain, the hemorrhage, sponging, stretching, tamponing and other operative procedures can not fail to disturb the normal conditions of the brain and cranial nerves even when the knife is wielded truly.

To determine the full value and harm of this operation these cases should be followed to their death, as Pheneas P. Gage was, after the accidental capital operation Nature performed upon him. Gage's was an accidental invasion of the brain territory as it had never before been penetrated without death follows, but Gage lived for years with one eye gone and intellect for a time undisturbed, finally to die of epileptic coma.

To see what has to be done, to get there and out safely, that is, with the patient reasonably safe, let us run over briefly the method of procedure beginning with the Hartley-Keene method. First, semicircular integument flap, base at zygoma, next corresponding bone excision with chisel, Gigli saw or surgical engine, then prying upward and outward the bone, separating dura from middle fossa, dura from third division at oval foramen, the second at the rotundum, cutting through at its respective foramen, tracing these nerves to ganglion, grasping ganglion with forceps and twisting it out, bringing out usually the sensory root. Then comes the flow of hemorrhage from the middle meningeal artery or the veins of the base of the skull, unless by the Doyen method the internal maxillary is tied before entering the skull, the torrent of blood may be lessened to a more manageable shower. But while all this is going on what damage is done to the delicate texture of nerve, brain membrane and brain suffering from surgical manipulation, bloody overflow and shock? But let us look at the Doyen method as preferred by Dr. Carson and other surgeons a little better, we think, than the Hartley-Krause method because it gives more room for entrance and better precaution against intercranial bleeding by tying the internal maxillary early in the proceeding.

A similar integumented and bony semicircular incision is made in the temporosphenoidal between the external angular process and the auditory meatus 15mm below. Zygomatic arch resected, temporal fossa exposed, lingual and dental nerve brought in sight, cut, and internal maxillary ligated, inferior maxillary found, traced up to the foramen ovale and the trephining is done on a line with the temporosphenoidal suture,superior maxillary nerve drawn upon and followed until ganglion is reached. The superior maxillary is cut at the foramen rotundum. The ganglion is reached with ease as Chalmers DaCosta says, whose description I have abridged and somewhat embellished. This operation offers points of advantage, according to DaCosta who had never tried it, and is the method briefly detailed which Carson has more fully described and performed with and without fatality and about the plan of procedure of Drs. Bartlett and McCandless.

Of course the brain and special nerves proceeding from it are suffering, a little, while this attack upon them is going on. What I, as a neurologist wish to learn is to what extent the patient is affected in the years and decades which follow in the life of those who escape for any considerable length of time the undertaker or the lunatic asylum. That some do appear to withstand the surgical shock and survive to tell the truthful tale of the surgeon's marvelous skill I am assured from the records of reliable men, but I would like to look with neurological eye and psychiatric vision upon them yet awhile in their career after the surgeon's knife and forceps have done their destructive saving work. The ganglion and nerves are gone. Of course there will be no more trouble there but what of the patient's nervous system including the brain elsewhere. The neuropathic neuralgic will remain more or less a neuropath after the operation. Here's the field for future observation.

My chief contention is that the final operation whenever decided upon, whether rightly or wrongly, should not be considered the finale of treatment, nor should the more justifiable and always advisable previous exsection of the

trigeminal branches be so considered. Neuriatric treatment should be kept up after the surgical procedure, for sixty or ninety days or more until reasonable assurance appears that the damaged nervous system is reconstructed and the patient appears to be no longer an actively neurotically crippled man. The neuralgic condition does not develop in a day though it may locally appear suddenly, neither can it be immediately conquered, though a surgical operation may cut out the seat of pain and the consequent nerve and mind rest of a neurectomy or gangliectomy may give and does give, sometimes, to vigorously reactive constitutions, all the help they need for complete return to normal nerve tone. Such vigor of constitution however is exceptional. But if proper neuriatric treatment is kept up after resections I do not believe gangliectomy would even be necessary.

My suggestion for a neuro-surgical plan of successful treatment of tri-facial neuralgia, when neurotherapy fails would therefore be this: Mentally prepare the patient for its radical relief by securing hopeful consent to a combined surgical and neurological treatment. Put her or him to bed, give chloroform, extirpate the involved peripheral nerves if you wish, keep both eyes closed (not necessarily by stitching) for the same length of time as one is kept closed by stitching to keep the eyes from the sloughing so likely to follow Gasserian gangliectomy without it. Keep the eyes closed to secure brain and nerve center rest. Keep visitors away from the patient. Maintain absolute brain and neural quiesence, such as follows the operation, by appropriate medication and maintain a six to ten weeks treatment on the lines above indicated. A neuralgic should be under medical observation and more or less treatment all his life like an epileptic and should be plainly told so. We should not temporize in treatment but treat the patient internally and constitutionally as well as locally.

The surgery of the ganglion of the trigeminus is confessedly I think, in surgical* as it is in neurological esti-

*A. E. Halstead, after his first operation with patient, free from pain and well in every way following it, considered the dangers of this operation so great and the disadvantages so apparent that it has been generally abandoned. He performed the subsequent operations with one of them comatose after forty-eight hours and dead on the fourth day.—*Chicago Medical Record*, December, 1897.

mate "the boldest" and "most adventurous" operation of the century just closed, as Matas *Annual of Universal Medical Science* said in 1893.

It only remains for surgery now in this dawning twentieth century to

> "Raze out the written troubles of the brain
> And pluck from the memory a rooted sorrow,"

ignoring the "sweet oblivions antidote" suggested in the question of Macbeth to his physician.

ADDENDUM.

N. B. Carson (*Weekly Medical Review*, March, 1899) calls attention to the fact that John Parmenter, of Buffalo (Transactions American Surgical Association, 1896), reports return of pain three months after the operation in a woman aged fifty-four. The pain returned in Clayton Parkhill's only case. Great immediate, but only partial subsequent relief, followed in D. W. Cheevar's case of Gasserian resection, and Lanphear has reported the return of pain in one case of Gasserian removal. Fleeting pains in the gum of the lower jaw of the operated side evanescent and trifling three years after operation are reported by L. S. Pilcher. Weeks makes the singular record of a case in which, after exsection, pain on the operated side continued for a few months and then disappeared.

These cases are all noted by Carson. He also notes the return of pain two months after the operation in one of D'Antona's cases of partial resection reported by Tiffany as entirely relieved and a similar case by Swartz. In the same record also is abridged one of Angelo Magnai's report of a resection of the Gasserian ganglion in which sensibility without pain returned incompletely in the second and third branches of the trigeminas.

On October 21, 1895, the superior maxillary nerve from infraorbital foramen to grand foramen in exit, was exsected with result of immediate relief but return of pain

after the lapse of about thirteen months, so violent that radical gangliectomy was performed.

The return of pain after complete excision of the Gasserian ganglion can only be explained on the hypothesis of central origin of the disease and the vicarious sensory function of contiguous nerves and the supplemental morbid implication of near by nerve centers. How otherwise are we to account for normal sensibility returning in the cut away peripheral nerve tracts with the ganglion also removed, as in Angelo Magnai's case.

The appearance of pain in the vicinity of the tri-facial branches and over vicarious nerve tracts to the brain is possible and quite probable in cases where enormous doses of opium or the salts of morphia have been used up to the time of the operation, the opium habit and its attendant neurotoxicity and consequent nerve and muscle pain, appearing in these cases from the abrupt withdrawal of the drug, as happens in attempted treatment of the chronic opium neuroses after sudden withdrawal without compensatory medical nerve impression.

Here is an operation in which a fifteen or twenty-two per cent mortality is a certainty, if we except Carson's record of about half this ratio and Victor Horsley's of two deaths out of twenty-one, or about nine and two-tenths per cent, advised and undertaken for a painful affection which recovers in more than fifty per cent of cases under medical treatment by ordinary methods and may almost invariably recover under good neurological management. This is holding life cheaply when opium will keep it in abeyance and aconite, or aconitia, strychnia, quinine, gelsemium, belladonna, iodides, salicylates, mercurial and other remedies cure it. I think with Landon Carter Gray that the excision of the Gasserian ganglion is more justifiable as an autopsic performance than as a remedial one, and with Senn that the operation will become obsolete, and with Phillip Coombs Knapp, I have not yet been compelled to advise it. Victor Horsley and Krause (*Practitioner*, September, 1900) have never seen a recurrence after the removal of the ganglion. I do not see how it could recur as true

trigeminal neuralgia when the tri-facial ganglion itself is removed.

Sciatica is curable by medical and electrical means, why not other neuropathic algias without the knife?

The knife is not here available and the disease itself compels to rest of limb and nerve. Prosopalgics do not rest the face enough. They talk, attend to business and eat food that requires maunching. They prod the crippled nerves to action yet expect the repair that comes, in part, of rest. Give the neuralgic the same chance as a sprained ankle or broken limb and supplement the adequate rest with the treatment I have outlined and surgical destruction of nerve will seldom be required. Though there will yet remain, sometimes, conditions of nerve in neuralgia which will require surgical as the only relief. When only the surgeon stands between neurology and the undertaker he should be summoned. The plaint of this paper is that the neurologist should oftener than he does stand between the surgeon and the undertaker, especially in neuralgia trigeminalis.

DEGENERACY STIGMATA AS A BASIS OF MORBID SUSPICION.*

A STUDY OF BYRON AND SIR WALTER SCOTT.

By JAS. G. KIERNAN, M. D.,
CHICAGO.
Fellow of the Chicago Academy of Medicine; Foreign Associate Member French Medico-Psychological Association.

IN MARKED contrast with Scott and Byron stands a contemporary of equal fame: one of the greatest of English poets, Shelley, who, as Harriet Alexander has pointed† out, was an excellent instance of the so-called senile arrest of childhood. He had a sub-microcephalic skull. The circumstances of his obsequies prevented any determination as to brain type. He was somnambulistic from his sixth year. From very early childhood "he was an imaginative and restless child." Trifles unnoticed by most children, seem to have made keen permanent impressions upon him—the sound of wind, the leafy whisper of trees, running waters. The imaginative faculties came so early into play that the unconscious desire to create resulted in the invention of weird tales of legendary creatures, tales sometimes based on imperfectly noted facts, on attempted delusion of neighbors and on the experience of more or less definite hallucinations. His memory surprised many of his friends. He delighted in "weird and sombre tales of the supernatural and horrible." He was extremely desultory in all his habits. His room was a chaos of

*Continued from the ALIENIST AND NEUROLOGIST, January, 1901.
†ALIENIST AND NEUROLOGIST, 1894.

scientific instruments, chemicals and books. "From thinking the best of friends and acquaintances, he could of a sudden and with inefficient cause, pass over to the other side and think the worst." Like most neuropaths he was easily hypnotized. He was a great hypochondriac. On one occasion, meeting a woman with large legs, he was seized by the notion that she had elephantiasis and had infected him. Medical examination demonstrated the falsity of this notion, but it persisted for several days. "One evening he actually arrested the dancing of a line of pretty girls, proceeding to examine their arms and necks with such woebegone gravity that they were terrified and their angry partners silent." He suffered frequently from the topoalgias so frequent in neurasthenics and hypochondriacs. His flagrant violations of social conventionalities were notorious. Many of these, however, had, as Symonds* has shown, logical bases from the Shelleyan standpoint of reaction against social tyranny not unnatural to a mind early subjected to the brutal "fagging" of English school boys and brutality of school masters who found a "voluptuous ecstacy" in flogging boys ere entering on the "feast of reason, flow of soul," of a banquet whereat the flogger was the "genial humorous" host. Shelley, however, violated his own code most capriciously. An avowed atheist, he took the sacrament in a blatantly audacious manner for interested reasons. He reverted to fetichism and argued for the existence of ghosts. He denounced legal marriage, but married Harriet Westbrook twice; once by the simple Scotch common law ceremony and once by the English Church rite. The constant nagging of his intriguant sister-in-law, which drove Harriet into "nerves and him into home hatred," led to the estrangement of wife and husband. The hysteric insensibility of the wife to her own children fostered this. Shelley's temperament, however, aided this tendency. He "took strange caprices, unfounded frights, vain apprehensions and panic terrors, and therefore absented himself from formal and sacred engagements." In a month after the English marriage he deserted Harriet and

*English Men of Letters: Shelley.

her unborn child, to elope with Mary Godwin. Even Symonds, the most logically psychological of Shelley's analysts, fails to justify this act from Shelleyan principles. In Shelley's case hereditary degeneracy existed. He normally reacted against school tyranny, hence it alone does not account for the defects and peculiarities of his career.

It is a singularly excellent illustration of the truth of the proverb, "Like clings to like," that Byron, Scott and Shelley should have married neurotic women. That there is often a superficial attractiveness in the neurotic woman is undeniable. Especially is this true of the cerebral type of Des Champs,* particularly when to the cerebral element is united the genital and neuropathic. The general characteristics of the neurotic women are an absolute want of equilibrium in sensibility and will power. There exists mobility of humor in direct relation with facile impressionability to external influence or to internal states. The nerves vibrate to all sentiments coming from within or without, and all are registered without proper relation. One fact chased by another is forgotten. Another produces a momentary hyperexcitation which takes place of the truth, whence it is that falsehood is instinctive, but the patient protests her good faith if accused of the same. This lack of equilibrium leads to a decided modification of the mental faculties. Intellectual activity is over-excited, but in diverse degrees and variable ways, according to the particular tendencies adopted. Absorbed by a preoccupation or controlled by an idea, they become indifferent to all else. Their ideas are abundant, and they rapidly pass from the idea to the act. Their vivid imagination, coupled with a bright intelligence, gives them a seducing aspect, but their judgment is singularly limited, attenuated or false. They judge from a non-personal standpoint excellently. They are quick at discovering the faults of even their own relatives, but faults rightly attributed to themselves are repudiated. Their memory is capricious. They forget their faults and their acts under impulse, albeit, these may be consciously done.

*ALIENIST AND NEUROLOGIST, 1895.

The cerebral type is led by the intelligence. She has little or no coquetry; what there may be is the result of intention and temporary. There is an ethical sense, frankness and nobility in her ideas, disinterestedness and tact in her acts and she is capable of friendship. Her tastes carry her to male pursuits, in which she succeeds. She becomes often what is called a "superior woman" and too often what is called an "incomprehensible woman." She has but little guile.

To the sensual type voluptuousness is the aim of life and the center of her acts and thoughts. She is well endowed with guile and extremely diplomatic. She is full of finesse, but not very delicate. Her lack of scruple often spoils her tact. She is ruseful, dissimulating and unconsciously mendacious. She despises friendship and needs watching. If circumstances permit she loses all delicacy, reserve and modesty. She is destitute of scruples. Her crimes are coolly remorseless.

The neuropathic type is one to which the grasshopper is a burden. Her nerves are always on edge. She is a heroic invalid who displays the air of a martyr about trivialities.

The character of the neurotic recalls the observation of Milne-Edwards concerning the monkey character. Levity is one of its salient features and its mobility is extreme. One can get it to shift in an instant from one mood or train of ideas to another. It is now plunged into black melancholy and in a moment may be vastly amused at some object presented to its attention.

Byron did not have the intense egotism so often found in the cripple, and especially in the victim of club-foot. At school he interfered to protect one of his juniors, lame like himself and otherwise much weaker, from the ill-treatment of some hulking tyrant. Byron's friendships seem to have been intensely passionate. His friendship with Lord Clare was as intense as that of a love affair. In 1821 Byron was unable to hear the name Clare without a beating of the heart. On this friendship seems to have been based the poem "Friendship Is Love Without Wings."

Byron's earlier experience was emphasized by the training he received from Dr. Drury. For later in dealing with the question of the Greek and Latin classics Byron remarks that school boys become "tired of the task before they can comprehend the beauty; that they learn by rote before they get by heart; that the freshness is worn away and the future pleasure and advantage deadened and destroyed at an age when they can neither feel nor understand the power of composition, which it requires, an acquaintance with life, as well as Latin and Greek, to relish or to reason upon. In some parts of the continent young persons are taught from common authors and do not read the best classics till their maturity."

Comparatively slight stress was then laid on modern languages. Byron learned to read French with fluency and made himself familiar with the great French works of the eighteenth century. He spoke it with so little ease or accuracy that his speech was a stumbling block to his French acquaintances. Of German he had a slight smattering. Of Italian he was a master. The extent and variety of his general reading was remarkable. His list of books, drawn up in 1807, includes more history and biography than most men of education read during a long life, a fair load of philosophy, Demosthenes, Cicero and Parliamentary Debates from 1688 to 1742; theology (Blair, Tillotson, Hooker). The last he finds: "Very tiresome. I abhor books of religion, though I reverence and love my God without the blasphemous notions of sectaries." Under "Miscellanies" the list gives the Spectator, Rambler, World, etc. Under fiction, Cervantes, Fielding, Smollet, Richardson, Mackenzie, Sterne, Rabelais and Rousseau. Burton's "Anatomy of Melancholy," according to Byron, is the best storehouse for second-hand quotations, as Stearne and others have found. The greater part of the books named were perused at fifteen. Byron was an omniverous reader, who read eating, read in bed, read when no one else reads, and having a memory only less retentive than that of Macaulay, acquired so much general information as

*English Men of Letters: Byron.

to be suspected of picking it up from Reviews. However, Byron never read a Review till he was eighteen years old, when he wrote a review utterly worthless, on Wordsworth.

Before leaving Harrow, Byron passed through a psychological experience which deepened the suspicional condition resultant on his deformity. Byron met Miss Mary Ann Chaworth, the heiress of the family whose estates joined his own; a kinswoman by blood and a descendant of the man who had been killed by his collateral ancestor, the "Mad Lord." For her Byron developed an intensely passionate attachment and wished to marry her. This, as he says, "would have joined broad lands, healed an old feud and satisfied at least one heart." Mary Chaworth was a neurotic flirt who behaved with intense cruelty to Byron; witness her heartless speech to her maid in his hearing, "Do you think I could care for that lame boy?" which drove Byron like a hunted creature to Newstead for refuge. A young lady, two years his senior, of a lively and volatile temper, she enjoyed the stolen interviews at the gate between the grounds and laughed at the ardent letters received through a confidant of the still awkward youth whom she contemptuously regarded as a "lame boy." She did not divine the genius of Byron, nor any ambition to ally herself with the wild race of Newstead. She preferred a hale, commonplace, fox-hunting squire, and after an unhappy life, became, a few years after marriage, a demonstrable case of chronic hysteric insanity and died demented.

The attraction of the neurotic for the neurotic perverts the principle of avatism, as E. S. Talbot remarks, to the assistance of degeneracy. As Roler, de Monteyel, H. M. Bannister, Manning and myself have shown, this tendency of neurotics to intermarriage is exceedingly common in Germany, France, the United States and Australia. Bannister* puts the statistical proof of this tendency very forcibly as follows: "There are in Illinois, according to the most recent estimate, in round numbers about six thousand insane, or one to a little over five thousand of the population. Even if we double, treble or quadruple this frequency

*Journal of Nervous and Mental Diseases, 1883.

to include all that have been or are to be insane as well as those insane at the present time it would not appear that there was much probability of two insane persons being married according to any ordinary law of chance. In fact, we find four out of the one hundred and four with insane heredity had both father and mother insane. In one of these cases the insane heredity involved both parents and grand parents on each side, though in the case of the latter the histories show it only as collateral. Beside these, three patients had direct paternal and collateral maternal heredity; two had direct maternal and collateral paternal heredity, and in one case there was collateral heredity of insanity on both sides. This makes, altogether, nearly ten per cent of those with insane heredity with it on both sides, maternal and paternal, and thus favored with a double opportunity to inherit mental disease. If we add to this the instances where with insanity of one patient there is reported either epilepsy, hysteria, or drunkenness, brain disease, nervousness, etc., of the other the ratio of double inheritance rises to over twenty per cent."

Byron's career at Cambridge was very unsatisfactory, although he did take his degree. The English Universities of that time, and the same is in no small degree true now, were better adapted for the creation of that learned monstrosity, the English Don (who closely resembled in mentality the idiot savants elsewhere described), than the production of active, working scholars. The defects of the English Universities in this particular are of very old date, albeit denied by some English men of letters like Nichol.* "A good German critic dwelling," Nichol remarks, "on the comparatively narrow range of studies to which the energies of Cambridge were then mainly directed, adds somewhat rashly that English national literature stands for the most part beyond the range of the academic circle." This statement is reiterated with persistent inaccuracy. "The most casual reference to biography," Nichol states, shows us that "at least four-fifths of the leading statesmen in England were trained within the walls of her universities and cherished a portion

*English Men of Letters: Byron.

of their spirit. From them have sprung the intellectual fires that have at every crisis of our history kindled the nation into a new life; from the age of Wycliffe through those of Latimer, Locke, Gibbon, Macaulay to the present reign of the Physicists comparatively few of the motors of their age have been wholly 'without the academic circle.' Analyzing with the same view, the lives of the British poets of real note from Barbour to Tennyson the proportion of university men increases. If the demands of technical routine have sometimes tended to stifle the comparative response of a seclusion 'unravaged' by the fierce activities around it, the habit of dwelling on the old wisdom and harping of the ancient strings is calculated to foster the poetic temper and enrich its resources. This discouraging effect of a sometimes supercilious and conservative criticism is not an unmixed evil. The verse writer who can be snuffed out by the cavils of a tutorial drone is a poetaster silenced for his country's good. It is true, however, that to original minds bubbling with spontaneity or arrogant with the consciousness of power the discipline is hard and the restraint excessive, and that the men whom their colleges are most proud to remember have handled them severely. Bacon inveighs against the scholastic trifling of his day; Milton talks of the waste of time on litigious brawling; Locke mocks at the logic of the schools; Cowley complains of being taught words, not things; Gibbon rejoices over his escape from 'the port and prejudice' of Magdalen; Wordsworth contemns the 'trade in classic niceties and roves in magisterial liberty,' by the Cam, as afterwards among the hills?"

Turning, however, to one of the instances quoted by Nichol in favor of the university system it is found that his experience, fully demonstrating the position of the German critic, tends to show (as do the biographies of the other instances Nichol cites) that only those who escape university influences were of any value to their age. "The bad effects," Macaulay* remarks, "of the English university system may be traced to the very last in many

*Essays: London University.

eminent and respectable men. They have acquired great skill in business. They have laid up great stores of information. But something is still wanting. The superstructure is vast and splendid but the foundations are unsound. It is evident that their knowledge is not systematized; that, however well they may argue on particular points, they have not that amplitude and intrepidity of intellect which it is the first object of education to produce. They hate abstract reasoning. The very name of theory is terrible to them. They seem to think that the use of experience is not to lead men to the knowledge of general principles but to prevent them from ever thinking about general principles at all. They may play at bo-peep with truth, but they never get a full view of it in all its proportions. The cause is that they have passed those years during which the mind frequently acquires the character which it ever after remains in studies which, when exclusively pursued, have no tendency to strengthen or expand it."

As Macaulay would be considered a university success from the standpoint of college standing, his testimony is as destructive of the position taken by Nichol as that of Bacon, Milton, Locke, Harvey and hundreds of other English leaders in the world of thought. The influence of the Oxford Don in deadening the human intellect at its most plastic period cannot well be underestimated. Nichol's use of unanalyzed statistics illustrates once more that nothing lies like them. The great creations of the English universities and too often of America under plutocratic domain are the philistine and that bright blossom of philistinism,the Don.

Lady Caroline Lamb like Miss Chaworth died insane. Her cousin (Miss Milbanke) was introduced to Byron by Lady Melbourne, who managed to make the unfortunate match which afterwards marred Byron's life. This cousin (afterwards Lady Bryon) had every characteristic of a borderland hysteric, especially those which make hysterics most prominent among so-called reformatory movements born of the morbid desire for notoriety. She had the hysteric prudish pruriency which finds sexual gratification in seeing the coarse in sex affection and in gloating over sexual im-

morality delusively conceived to exist in others. She had the hysteric tendency to pose which led her first to refuse Byron, then to accept him, and then to separate from him with a great deal of publicity. Byron at the time of the marriage was still under the halo of society popularity, due to the success of "Childe Harold." He had intended this poem to be what "*Wahrheit und Dichtung*," was to Goethe; a poetic account of his life and travels with a little more tint than would have been needed in autobiography. He had called his hero "Childe Burun" in the first draft of the poem which contains probably more truth than Rousseau's "Confessions" but less of the darker phases. Byron, with all the posing tendencies forced on him as a defence against attack, still retained the healthy reticence anent the innate personality which separates health from morbid egotism. Rousseau had all the obtrusive anthropocentic egotism of the hebephreniac which makes him with his vices and his woes the center of the universe. Despite all his environment and his physical deformity, Byron never sounded the depths of morbid suspicion reached by Rousseau. Byron ridiculed Lady Byron's attempt to have him declared insane. Yet there were times when he doubted the integrity of his own mental state. This doubt occurs far more frequently in neurasthenia without evolution into the psychoses than it does in the psychoses themselves. The victims of obsession in whom the obsessions seriously disturb consciousness and create mental states of uncertainty are much more apt to be alarmed at their mental state than are the insane. Not unfrequently however a paranoiac attacked by neurasthenia regards the obsessions of neurasthenia as evidence of a morbid state while he resents any implication to the same effect on the systematized delusions of his psychosis. In New York a paranoiac suffering from distressing obsessions secured release from the insane hospital by habeas corpus, claiming that this demonstrated the sanity of his systematized delusions and then went back to the insane hospital to be treated for his obsessions. Dr. C. H. Nichols* the

*American Journal of Neurology and Psychiatry, Vol. III.

superintendent was obliged to secure a writ of ouster as he had no legal right to retain the patient. To a certain extent Byron believed himself like Rousseau to be the victim of what he called "reasoning insanity." Like an insane poet under care of Dr. Brigham, Byron felt insanity was a disturbance of mental balance irrespective of how the disturbing obsession was regarded.

"If understood, the truth is this,
The mind has many faculties,
And one distinct may be deranged,
And from its proper order changed,
Whilst all the rest do sound remain
In that alone the man's insane.
Imagination thus diseased,
Whatever violently seized,
Produces things within the mind,
Which are not easily defined."*

At the time Mrs. Byron did what Byron so humorously describes Inez as doing, in "Don Juan",

"For Inez called some druggists and physicians,
And tried to prove her loving lord was mad,
But as he had some lucid intermissions
She next decided he was only bad,
And when they asked her for her depositions,
No sort of explanation could be had,
Save that her duty both to man and God
Required this conduct—which seemed very odd,"

she was pregnant. She showed the caprice of a pregnant woman on the occasion when she made the charges that led to the medical examination. She had just before written a playful letter inviting Byron to join her at a certain place and arranged that his half-sister should urge him to go. The physicians called in decided on the facts laid before them that Byron was not insane. Byron had been brought up a Calvinist which would naturally produce the egotistic religiosity which gloats in a conversation from fancied wickedness of an extreme type. This condition would naturally lead to a state of doubt such as has been noted in the history of Bunyan, Milton, Cromwell and Rousseau. Byron like Bunyan, Milton and Cromwell

**American Journal of Insanity*, Vol. III, Page 190.

would naturally express himself in strong but vague terms. A hysteric like Mrs. Byron would take such confession literally, especially when laboring under the mental state produced by pregnancy. Pregnancy as Harriet Alexander* had pointed out, must under the Virchowan definition of pathologic as a new force introduced into the organism which disturbes its balance, be regarded as pathologic. As Harriet Alexander has shown in the vast majority cases of so-called normal pregnancy a suspicious capricious emotional state generally results. The suspicions of the first pregnancy may remain permanently with hysteric and neuropathic women; indeed many of the incurable types of insanity *in puerpuero* are due to persistence of such suspicional states in neuropathic or degenerate women. The influence of this factor is so palpable to layman that Noel† remarks: "But was Lady Byron quite reliable in her statements as to details? Women in a delicate situation sometimes get strange fancies. May not the delusions of such a time occasionally remain with them or recur later? Might this partly account for what Lady Byron so many years after told Mrs. Stowe? Byron as Jeafferson‡ remarks, with women was what they pleased to make or take him for. But he was most pleased with them when they treated him as nearly as possible like "a favorite and sometimes forward sister." As "a favorite and sometimes forward sister" he was thought of and treated by male friends. To be received by them on this footing he would leave his bed early so that he might breakfast with them, open their letters for them, chat with them, fondle their children in their boudoirs, for an hour or two at a time, before less privileged visitors dropped in for lunch. As a candidate for the place of a sister in her affections he sat for an entire hour with Lady Caroline Lamb, nursing her baby, without speaking a word above a whisper least the sleeping infant should be aroused to consciousness. As "a favorite and sometimes forward

*ALIENIST AND NEUROLOGIST 1887.

†Great Writers Series: Byron.

‡The Real Lord Byron.

sister" he hung about the skirts of the Countess of Oxford, playing with her beautiful little girl Charlotte, (precisely of the same age as Margaret Parker, whom as a school boy he loved so passionately). In the capacity of the countess "sister" and the little Lady Charlotte's aunt he wrote the verses to Ianthe, with:

> "that eye, which wild as the gazelle's
> Now brightly bold or beautifully shy,
> Wins as it wanders, dazzles where it dwells."

If Ianthe had innocently put the forbidden question to her mother's "sister" and asked, "Why to one so young his strain he would commend?" the unspoken answer would have been, "Because you remind me of my boyish passion for my cousin Margaret, of whom I thought tearfully and wretchedly, and yet not altogether unhappily, when I wrote my beautiful poetry to Thyraza." When a young man is allowed to play the part of a "sister" to a beautiful woman, the position, as Jeafferson remarks, is dangerous both to the one and the other. For the man, who is sympathized with and treated like a sister, whilst feeling and acting like one, may in a moment be stirred by masculine impulses to feel and act like a man,—in which case, he feels and acts like a man without self-control, and the woman remains what she has been all along—an excited and weak woman.

One factor of morbid suspicion was always present to serve as a powder magazine responsive to any assumed slight. In 1812 Byron walking up a street had his compassion aroused by a wretched woman lying on a doorstep. The act of charity to which pity moved him had a startlingly painful result; for, instead of taking the shillings he offered her, the miserable creature sprung to her feet, and uttering a drunken yell of derision began to mimic his lame gait. Byron said nothing either to the woman or the friend on whose arm he was leaning, but the latter felt the violent trembling of his companion's arm as they walked back to the house. The poet's lameness was seemingly to obviously noticeable to casual passers, not to create annoyance at the attention they paid to his deformity: "This way, my lord,"

cried a link-boy as Byron was stepping with Rogers to his carriage from the doorway of the house they had shown themselves at a ball. "He seems to know you," said Rogers. "Know me," was the bitter reply; "every one knows me,—I am deformed."

At this particular time Byron was at the acme of his personal attractiveness, according to Jeafferson. He was not a handsome man,—he was beautiful. The glowing fire overpowered the brownness of his auburn hair, that gradually deepened almost to the deepest and richest brown of auburn hair, before it turned gray. The blue-gray eyes were eloquent of emotion through their long, fine almost black lashes. The brow over and about which the feathery auburn curls played in tiny wavelets was white as marble; his usually pale complexion was delicate even to transparency, and at moments of joyous excitement was touched with the faintest sanguine glow. His mouth with its white and dainty teeth, with its lips of feminine sweetness and something of feminine voluptuousness and his delicately modeled chin, strong enough for fascination,—far, far too weak for moral robustness,—were the lips and chin of a lovely, sensitive, capricious, charming woman, rather than the lips and chin of a man. His countenance especially in the mouth and eyes was remarkable for mobility and expressiveness—in harmony with the quickness and vehemence of his emotional temperament. His long, broad throat, broad chest, and square set shoulders were however abundantly expressive of masculine strength. Byron's voice was, in his ordinary conversation, perhaps more musical than the voice of any other man or woman of his period. To the children of the houses where he was a most frequent and familiar guest he was the gentleman "who speaks like music."

Genius, as I pointed out about a decade ago,* attracts hysterically sentimental females as light-house lanterns do birds. Burns, as Robert L. Stevenson† has shown, owed a good deal of his misfortune to this. "It was upon love and

*Alienist and Neurologist, 1891.
†Familiar Studies of Men and Books.

flirtation that a local society among the Ayrshire Hills was built. Burns was constantly the victim of some fair enslaver," at least when it was not the other way about; and there were often underplots and secondary fair enslavers in the background. Many of these affairs were entirely artificial. One he began out of "a vanity of showing his parts in courtship." But, however they began, these flames of his were fanned into passion ere the end and he stands unsurpassed in his power of self-deception and positively without a competitor in the art, to use his own words, of battering himself into a warm affection, a debilitating and futile exercise. Once he had worked himself into the vein, the agitations of his mind and body were an astonishment to all who knew him. Such a course as this, however pleasant to a thirsty vanity, was lowering to his nature. He sank more toward the professional Don Juan."

Byron passed through a seemingly similar experience, totally unlike in essence to that of Burns, soon after the appearance in March, 1807, of "The Hours of Idlenesss." With passions which he compares to the fires of Vesuvius and Hecla, Byron was, on his entrance into social life which his rank helped to surround with temptations, unconscious of any sufficient motive for resisting them. He had no one to restrain him from the whim of the moment or with sufficient authority to give him effective advice. The degenerate temperament of general despondency, relieved by reckless outbursts of animal spirits, is not favorable to habitual self-control. Just before this he and his mother had had an intensely disagreeable time. She exhibited violence which, in Nichol's opinion, suggests insanity. After one squabble more outrageous than usual mother and son went to a neighboring apothecary, each to request him not to supply the other with poison. On a later occasion, when he had been meeting her outbursts of rage with stubborn mockery, she flung a poker at his head and narrowly missed her aim. Upon this he took flight to London and his Hydra or Alecto, as he calls her, followed. On their meeting a truce was patched up and they withdrew in opposite directions. Under such circumstances it is hardly

astonishing that Byron should have rushed about between London, Brighton, Cambridge and Newstead shooting, gambling, swimming, alternately drinking deep and trying to starve himself into elegance, green-room hunting, traveling with disguised girl companions, patronizing D'Egville, the dancing-master, Grimaldi, the clown, and taking boxing lessons from Jackson. Byron's tendency to dwell blatantly on amours devoid of romance proves that he never trenched on what the common code of the fashionable world terms dishonor. From his later assertions and the absence of evidence to the contrary (very significant as to a man so decried) it is clear that Byron had never been the first means of leading any one astray. A fact worthy, as Nichols remarks, the attention of those moral worshippers of Goethe and Burns who hiss at Byron's name. Goethe's amours were similar to those of Burns.* His treatment of the daughters of the French pastor with whom he lived showed a cruelty in regard to woman like to that displayed as a matter of bravado by Burns. As Havelock Ellis† points out, Goethe,‡ (describing his student life at Leipzig and his loss of Aennchen owing to his neglect of her), tells how he revenged that neglect on his own physical nature by foolish practices from which he thinks he suffered for a considerable period. Goethe must have early abandoned masturbation. While the evil effects of this have been over estimated it must be admitted that so far as the romantic aspect of love is concerned, masturbation is peculiarly injurious because, as Stefanowski§ points out, of the complete moral isolation in which it plunges the masturbator. To him is lacking the most necessary element of love—the real being of a woman which he attempts to supplant by chimeras and phantoms. The voluptuous sensation is produced under abnormal conditions. It is accompanied by a polyideac state in lieu of an aideac one, as in normal, where the real sensation is so strong as to afford no place for play of imaginary lubricity. Masturbation produces ex-

*Familiar Studies of Men and Books.
†Psychology of Sex, Vol. II.
‡Truth and Fiction.
§ALIENIST AND NEUROLOGIST, 1893.

pansion of egotism. Little by little, follows the habit of regarding the physical pleasure as the end without regard to the female from whom the pleasure is to be procured. The evil habits of youth appear, as Bourget says, under the form of abominable vices in the man as he ages. It is very probable that almost all the neuroses have their origin in erotic disorders and these last originate in the bad hygiene of puberty.

Such a condition reverses the evolution of romantic love. Goethe seems, however, never to have (despite the seeming evidence to the contrary in Faust and Werther,) experienced romantic love. His amours were destitute of this factor. His marriage with the dipsomaniac servant girl, Christina Vulpius, who had been his mistress, was in part the seeming expression of a need for a nurse. One most emphatic instance of attraction of a hysteric toward Byron was that of Lady Caroline Lamb who, according to Nichol, "was one of the few women of a temperate clime who by their romantic impetuousity recall the Children of the Sun." She read Burns in her ninth year. In her thirteenth she idealized William Lamb, (afterwards Lord Melbourne) as a statue of liberty. In her nineteenth (1805) she married him. She lead with him for some years thereafter (during which she was a reigning belle and toast) a domestic life only marred by occasional eccentricities. Rogers, whom in a letter to Lady Morgan she numbers among her lovers, said she ought to know Byron, who was three years her junior. The introduction took place, March, 1812. After the meeting she wrote in her journal. "Mad — bad — and dangerous to know"; but when the fashionable Apollo called at Melbourne House she "flew to beautify herself." Flushed by his conquest he spent a great part of the following year in her company. During this time the apathy or self-confidence of the husband laughed at the worship of the hero. "Conrad" detailed his travels and adventures, interested "Medora" by his woes, dictated her amusements, invited her guests, and seems to have set rules to the establishment. "Medora" on the other hand made no secret of her devotion, declared that

they were affinities and offered him her jewels. After the first excitement he began to grow weary of her talk about herself. He found himself unable to praise her indifferent verses. "He grew moody and she fretful when their mutual egotism jarred." Byron at length concurred in her being removed for a season to her father's house in Ireland, on which occasion he wrote glowing farewell letters. When she came back matters were little better. The would-be Juliet beset the poet with renewed advances, on one occasion penetrating to his rooms in the disguise of a page, on another threatening to stab herself with a pair of scissors, and again, developing into a Medea offering her gratitude to any one who would kill him.

(*To be continued.*)

MEDICINE IN 1800.*

By SAMUEL L. MITCHELL, M. D.,
NEW YORK.

AN ATTEMPT has been made in the first part of Zoönomia to investigate the complex laws of animal causation. These are deduced from the contractions and relaxations performed by the living fibers which constitute the muscles and organs of sense. Fibrous contractions seem to constitute all the functions of animated bodies and, indeed, all we know both physiologically and medically concerning life and its functions. They are arranged into four classes of motions which from the foundation of all just nosology and practice are detailed in the second great division of the Zoönomia. Vital motions are thus called irritative, sensitive, voluntary and associated, and accordingly the parts of the body in which they exist are endowed with irritability, sensation, volition or sympathy. This quadruple allotment of functions forms a strong and peculiar character of Zoönomia. The distribution of the almost endless variety of animated phenomena into the fourfold and lucid argument is a clear proof of the discrimination and generalizing mind of Erasmus Darwin.

But in all these conditions of the system, whether influenced by the *vis insita* or the *vis nervea* by voluntary or sympathetic energy, the sensorial powers are sustained by the unceasing operation of stimulants. The theory of these in the twelfth chapter of the first part exhibits very advantageously the doctrine of stimulus and exertion, or as it has been more generally called, excitement.

*Being the Preface to the American Edition of Erasmus Darwin's Zoönomia.

There is a striking analogy between these fundamental doctrines of Dr. Erasmus Darwin and those contained in Dr. Brown's Elements of Medicine. Darwin was aware of this, and to guard himself against the imputation of having borrowed Brown's ideas without knowledge or of being merely his imitator, he observes that "the coincidence of some parts of this work with correspondent deductions in the Brunonian Elementae Medicinae, a work (with some exceptions) of great genius, must be considered as confirmations of the truth of the theory, as they were arrived at by different trains of reasoning."

In respect to originality there is great difficulty in settling claims. In this case, however, there is not even a suspicion that Brown derived anything from Darwin. Both might, indeed, have come to similar conclusions, by the independent exercise of their reason, without any communication or intercourse. And yet an impartial observer, prone neither to obloquy nor flattering, would not forfeit his candour in suspecting that a writer of Darwin's acuteness might have gathered something from Brown, who published fourteen years before him.

Considering the Brunonian-Darwinian systems as resting upon the same pillars, there may be both usefulness and curiosity in searching and digging about the ground on which they stand. In performing this task it has been expected there should be a statement showing how far these doctrines of the Scottish and English physicians are themselves novel or modern or whether they are both of the old school and derived from remote and ancient sources. By deciding in favor of their modernity it will be likewise expected that a view should be given of the Brunonian system, that it may be compared with the contemporary doctrines of Cullen and Darwin. In this comparison it will be found that Brown's merit is very conspicuous. The three distinguished authors have finished their earthly career. They and their writings may now be considered without envy or partiality. To those who are curious to trace the progress of these opinions which exert such extensive dominion over the mind, these introductory remarks

may, perhaps, afford some gratification. Others who possess not the taste or leisure for such inquiries may pass them over. In the progress of observation and experiment in physics within the course of a few years such a number of new and important facts have been brought to light that many philosophers have believed the people of the present day are possessed of a great deal more knowledge than the moderns of the three last centuries or their ancient predecessors.

This opinion in particular has been deemed well founded and true in respect to medicine, which, at this time, is not only considered susceptible of new expositions and interpretations, but of being greatly improved and enlarged both in theory and practice. And although among those who think thus are reckoned most of the original and clear-sighted geniuses of our time, yet there are not wanting men of talents and reputation who are in the habit of thinking that, while the ancients knew quite as much as ourselves, yet their writings contained the leading hints or great outlines of almost everything discoverable, either directly expressed or signified in allegorical terms.

This literary superstition has been carried a great way. Had it stopped at declaring the Iliad the best of possible poems or the Philipics the most finished of the rhetorical productions I should not trouble myself to contradict it. But when these enthusiastic admirers of antiquity declare that in matters of science as well as of letters the subjects of inquiry have been exhausted two thousand years ago and that no idea can be started which is not an imitation of something that a Greek or a Roman or somebody else had brought out before, I own I am a little disposed to believe their assertions are grounded neither in truth nor in the nature of things. For why must we resort to the Platonists, Stoics or Peripatetics for doctrines which the Academy, the Porch and the Lyceum never knew?

These remarks are made in consequence of an opinion propagated and believed that a certain method of reasoning upon medical subjects and medical practice introduced of late, as many believe that ideas which are already pretty

well established and acquiring rapidly more and more adherents are, in fact, but a revival and new modeling of the opinions and procedure of the Methodic Sect founded by Asclepiades, the contemporary of Mithridates and Crassus.

In order to know whether this opinion is well founded it is necessary to inquire what the philosophy of the Methodic Sect was. Its founder, Asclepiades, adopted that philosophy whose foundation had been laid by Anaxagoras, Empedocles and Heraclitus and which was afterwards wrought up into the Atomic System by Leucippus and Democritus of the Eletic Sect; who rejecting all metaphysical explanation of the causes of things, undertook to interpret nature from the laws of matter and motion. This was afterwards commented upon, enlarged and so adorned by Epicurus as to form what was afterwards called the Epicurean Philosophy. What the details of this are may be seen in Diogenes Laertius Bucker and his translator Enfield as well as the poem of Lucretius who has confessedly attempted a poetical display of these very doctrines.

An Epicurean would explain himself thus: "It is clear from the changes which natural bodies undergo that there is a perpetual formation and destruction of them going on." There must then exist matters of which these things are formed and into which they are resolved and hence proceeds the conclusion which is the ground work of the system that a thing can neither be made out of nothing or reduced to nothing. The universe therefore as to its constituent atoms or particles was always as it is at present and consequently matter is eternal. The workman cannot perform anything without materials. These self-excitent materials in the decay and renovation they undergo, account for the phenomena of nature and of art. If things were created out of nothing then every kind should proceed from each and the greatest confusion ensue. Men should be produced in the sea, fish on the land and cattle in the clouds; generation would be useless and food unnecessary. If they returned to nothing, then in the course of past ages through waste, consumption and loss, much must have vanished to non-existence and have been com-

pletely annihilated. But neither of these suppositions is true since out of the wreck or ruin of one being or existence, nature without an act of creation or annihilation can not work up the old materials into a new fabric. All existences in nature are referable to two kinds. First, bodies; and second, the inane or void in which they exist. Our senses satisfy us of the existence of bodies as also do their actions, passions, and resisting powers; particularly as they operate upon each other and upon our touch.

"For nothing but a body can touch or be touched"—Lucretius: "From the existence and motions of bodies is inferred the existence of space, and the effect of bodies operating upon each other is denominated 'an event,'" and if there was not a void there would not be a possibility of motion, for if a plenum existed, then every portion of space being closely impacted and wedged with solidity the most uniform rest and dead stillness would pervade the whole of nature.

As to bodies they either consist of elementary atoms or of substances formed from these; and these primordial particles, notwithstanding some appearances to the contrary, are simple, solid and indivisible.

Lucretius: "Therefore elementary bodies are solid and destitute of vacuity." All these atoms possess the same general properties and do not differ from each other in any essential respect. Though from their different operations upon the senses is inferred a difference among them as to size, shape and heaviness. Their figures in particular are varied in an endless manner so as to take on every mechanical form; but in all these cases they are still infrangible and incapable of farther division. Each atom contains within itself an active energy or internal force by which it is either constantly in motion or making an effort to move; and this is denominated gravity. These atoms impelled by gravity through void space in curvilinear courses striking against each other exercise repelling powers and produce vibration or agitation; and as this gravitating power is essential to matter it can never be inactive but must be always at work and has been so from eternity.

Every compound body being made up of individual atoms therefore possesses the united energy of them all which energy is the sole agent in nature; but by reason of their different figures their varied magnitudes and particular situations, it is variously modified, as when the atoms are hooked, or rough motion will be retarded among them and be facilitated when they are round and smooth, as in the principles of fire and animation. Bodies thus being composed of atoms derive their actions from the energy inherent in and proceeding from these atoms.

All alterations happening in bodies whether in their shape, hardness, sweetness, etc., are ascribable to the change taking place in the arrangement, disposition, etc., of the constituent particles; and thus profity, transparency, elasticity, malleability, etc., are to be accounted for in the same way. Gravity being an essential property of matter all corpuscles and all bodies formed of it must be heavy. Thus from these properties of bodies, their several combinations and mechanical operations arise, other more complex phenomena referable however to the principle of motion such as the heating of bodies from the influx of soft, round and smooth particles; the cooling of them form the ingress of atoms of opposite and irregular figures even sensations both to the pleasurable and painful kinds, motion, rest and time itself are contingences to bodies. In short the whole phenomena of the production, growth, nutrition, decline and dissolution of bodies to be ascribed to an alteration of arrangement in the particles as to their addition or subtraction.

Minerals, plants and animals were thus produced in the beginning according to these mechanical laws of matter and motion and so was the world they compose and inhabit. They continue to propogate their kind in regular ways because nature has become accustomed by habit to produce them in an order so uniform as to look like design. The eye however was not made for seeing nor the ear for hearing but having been accidentally formed in such a way as to answer these purposes, the sentient principle within, which is co-existent

with the organization, finding them fit for the purpose of sight and hearing makes use of them accordingly.

Sensation proceeding from the arrangement and texture of particles to be ascribed to their peculiar magnitude, shape, combination so that instead of being an original property of matter, it is in fact only an occasional quality. Death is the privation of sensation in consequence of the separation of the sentient principle from the body. This sentient principle when a man dies is decompounded into its simple atoms, loses its sensitive powers and goes into other forms and combinations. The soul in this respect resembling the eye which is no longer capable of performing its functions than the connection of its organized texture with the bodies lasts.

What Asclepiades did was to apply the principles of the Epicurean Philosophy to medicine which was done with much ingenuity and acuteness. Building upon that hypothesis he supposed the human body composed of Epicurus's ultimate atoms, which, by their figure, proximity and arrangement, enabled it to perform its functions in a particular manner. Health consists in the symmetrical permeability of certain passages through the firm parts, which he called pores; and the closing up, or obstruction of these constitute disease. He imagined the fluids to be formed of particles varying in figure and size and thus making all the varieties of them, from the thickest blood to the most attenuated animal spirits. And when these fluids move freely through their pores the body was sound but when they were so narrow as to produce stagnation or so oblique as not to be readily passable then indisposition ensued.

Such were the leading principles of Asclepiades. He had many followers among whom Themison of Laodicea was the most eminent. The latter rejected most of the subtle and labored reasoning of his master and declaring such minute investigations was useless affirmed without descending to particulars and burthening himself with details, a physician need only make himself acquainted with the general principles of disease. These he said belonged to two

classes, first, those proceeding from laxity: second, and such as were caused by stricture. All that was necessary to be done therefore was to ascertain to which class any given disease belonged and then if to the former to prescribe astringent; if to the latter relaxing remedies. The regular and systematic plan which Themison and his numerous followers adopted in their practice differing very widely from the conjectural and uncertain mode of other physicians caused them to be called Methodists. They are known in history by the name or the Methodic Sect. While Themison was reflecting upon his system and endeavoring to advance it to maturity he died. The unfinished work was taken up and finished by his follower, Thessalus, who lived in the time of Nero. Having rejected as frivolous all the opinions of his predecessors he declaimed with vehemence and fury against the physicians of all ages and offered to instruct a beginner in the art of medicine in the short duration of six months. Then with a degree of arrogance and impudence no parallel of which is known to have existed in ancient times, nor can be found in the history of modern quackery, (1800) he took upon himself the appellation of the "death conqueror."

After Thessalus, the Methodists began to decline and dwindle. Although Soranus, Julian and Moschion retarded for a while its downfall, yet it was totally unobserved and lost in the Galenic Doctrines which followed. In the Methodic System it is evident the explanation of everything in the animal economy is attempted upon principles of mechanism only.

The first notion of anything else requisite to give life and regulate functions seems to have occurred to Hippocrates, the contemporary of Democritus and Leucippus. The *archæus* of this sagacious observer, as the interpretation of the word imports, obviously means an exciting power in animals. In the effects of animation resulting from this imperfectly known and badly explained power doubtless give rise, according to the opinion and judgment of the different writers to the nature of Sydenham, the aura vitalis of Van Helmont, the vis nature medicatrix of Gaubius, the anima medica of Stahl

and the designation in a learned and curious treatiset of the impetum faciens of Boerhaave.

It is worthy of remark that from Hippocrates to Brown writers entertained the opinions of a principle of power within existing as the cause of life. The idea of the Brunonians is that the organized animal solid possesses no internal energy and would always remain inactive unless excited by stimuli from without and the Brunonians therefore speak of the vital capacity in the passive voice as only susceptible of being acted upon.

Herman Boerhaave in his account of the diseases of a lax and of a rigid fibre seems again to relapse into the mechanical consideration of these things but Halter by his numerous and luminous experiments on sensibility and irritability led the way to a right mode of pursuing and understanding such inquiries.

The attention of Hoffman had been turned to the consideration of the nervous system as influencing diseases more particularly than any other person. From his writings were probably taken the hints which terminated in Cullen's doctrine of Excitement and Collapse and enunciated first in his Physiological Tract afterwards enlarged and applied to practice in his chapter on vesanise (First Lines 1544 and seq) as well as the observation in his letter on the recovery of persons drowned (P. 4.) Though the circulation of the blood is necessary to the support of life, the living state of animals does not consist in that alone, but especially depends upon a certain condition of the nerves and muscular fibres by which they are sensible and irritable and upon which the action of the heart itself depends. To the same effect are the remarks on the effects of stimuli in keeping up the action and energy of the brain at all times in his treatise upon the materia medica.

John Hunter had been speculating too on this subject. In his experiments on animals with respect to their powers of producing heat he has brought curious and important facts to view. His reasoning on them is in some instances inconclusive and exceptionable, in others quite unphilosophical. This inquiry was intended as a counterpart to the experiment

of Blagden and his associates in the heated chamber on the power of the human body to produce cold in high temperatures. He ascribes a great deal throughout his performance to the stimulant action of cold and to the exhaustion of the power of life in freezing animals by their efforts to produce heat. He even ascribes the attempt of his poor victim, the dormouse, to get out of the vessel in which he was to be frozen to death to the rousing of animal action by cold. He seems to take little notice of the vital organs, the fire place whence the constitution receives its warmth; nor regard much the condition of the respiratory function in any of the creatures he operated upon nor the pain they endured and the changes in their economy consequent upon. The experiments on an egg, frog, eel and snail may be as well explained on the idea of the increased susceptibility to impression produced by the subduction of stimuli and by an extraordinary exertion of the respiratory organs causing a greater evolution of heat as upon Hunter's hypothesis which may be summed up in this general conclusion that cold produces its effect in suspending the voluntary actions though as a sedative to a certain point beyond which it seems to act as a stimulant, exciting the animal powers to exhort themselves for self-preservation.

It will be evident that the Epricurean Sectaries entertained no other than mechanical notions concerning the production, action and changes of bodies; and that Hippocrates and his followers though considerably more advanced toward the truth had gone no farther than to observe solitary and individual facts, arrange these into detached sentences or insulated aphorism sometimes entirely true and sometimes containing only a mixture of truth; or frame strange and whimsical hypotheses by aid of which as general principles they attempted to explain things. The most forward of them seems to have done little more than trace the corporeal functions by partial induction to the common sensory.

Such was the condition of medical science until almost twenty-five years ago (1775) when in that very place where spasm, reaction and *vis medicatrix* nature

were flourishing in full vigor under the assiduous cultivation of Cullen, they were nipped and cropped in the blossom, and nearly eradicated by the improving hand of Brown, from the intimate acquaintance which Brown or Bruno as he called himself had with the published writings and probably with the private opinions of Cullen. From his academic habits, his erudition and knowledge of every thing passing at the University of Edinburgh, Brown must have had great opportunities as well of learning all that was printed in physic as of studying the defects and detecting the weakness of Cullen's doctrines. He ventured one day to talk to Cullen on the incomprehensible ideas of atony and spasm existing in the same vessels of the body at the same time; and thereby provoked him to manifest signs of impatience and displeasure. A coolness took place immediately which increased at last, by successive and mutual aggravation to rooted aversion and deep opposition. To this irritated state of Brown's mind, indignant with the sense of unbecoming treatment, is to be ascribed no small portion of that resolution and energy with which he labored out a system of Medical Philosophy which, though not free from errors, borrows, however, none from Cullen.

The Elementa Medicina, published in 1780, was dedicated to Sir John Elliot, but this dedication was withheld from the second edition. After stating his twenty years labor in learning and teaching physic he observes, it was not until the fourth lustrum that some dawning of light broke in upon him. The opinion that in the phlegmasæ of nosologists, local affection was not the cause of pyrexia, but on the contrary a symptom consequent upon a previous excitement of the whole constitution, appears to have been early adopted by him, from his own personal sufferings in erysipelas cynanche, tonsillaris, catarrh and synocha, and from his perusal of whatever had been written by Morgagni, Triller and other candid authors on these subjects and on pneumonia he was confident his ideas were right.

He, at this time, proposed the doctrine of cold predis-

posing the body to be operated upon in a powerful manner and to a morbid degree by subsequent heat; which, indeed, may be regarded as one of the most important practical truths in medicine.

He calls in question the propriety of forming opinions of the nature of diseases by their symptoms merely and bodily adopts the method of judging from the "lædentia" and "juvantia."

He offers well-founded criticism on nosological arrangement and shows wherein through want of distinction between universal and local diseases a number of these had been classed wrong.

On examining the phlogistic exanthemata he contends that in measles and scarlet fever as well as in smallpox, the general indications of cure is to diminish the inflammatory diathesis without the least regard to the peculiar nature of the contagion or the stage of eruption. These are, however, carefully to be distinguished from the plague and other eruptive diseases of totally opposite character. Without reference to the peculiarity of the respiration or the specific nature of the morbific cause, the certain things to be attended to are, how far the diseased condition deviates from health; and in what degree the living body approximates toward death. The exanthematous symptoms in the two classes of complaints varying in each, their forms only and not their nature.

Having proceeded thus far, he declares that diseases of the same type or class are to be relieved or cured by the same mode of treatment. That the volumes of diagnosis and the endless distinctions of nosology in spite of the authority even of Baglivi and Sydenham, when opposed to clear reason and matter of fact, ought to be disregarded. He expresses apprehension lest the infinite distinction of diseases should lead to a mode of practice equally diversified and have a very baneful effect upon materia medica and prescription.

In his remarks upon predisposition to bad health he avers that no person ever suddenly became sick, but that gradually a predisposition was created by the agency of the

exciting powers and out of this predisposition grew the disease. Of this he gives an example in the phlogistic exanthementa wherein he says a high degree of excitement produces the disease, a lower predisposition and a lower health: the means, therefore, conducive to the latter of these he thinks so simple that the use of the common nosology is entirely superceded.

Proceeding upon this plan, he distinguishes local from universal ailments; both of which are confusedly classed together in the different nosological arrangements.

This lead him to an examination of hemorrhage, which, if attended in the beginning with phlogistic diathesis, he thought always became eventually asthenic. In this, on inquiry, it was that he was induced to call in question the existence of plethora as a cause of hemorrhage and to reject altogether the notion of a vis medicatrix naturæ as an agent in the animal system.

This first edition of the Elementa is an unfinished work and comprehends the details of his doctrine rather than the sthenic form of diseases. Among these he ranks hemorrhage, especially menorrhagia, hæmorrhois, epistaxis and apoplexy, an arrangement which he afterwards considered wrong and altered accordingly in the following editions by placing them in the asthenic class.

Such was the strain of ideas passing in his mind as he reflected upon the animal economy, and upon these considerations did he judge himself warranted in undertaking an explanation of the subject different in many respects from any thing done before him.

He declares throughout the whole he never descends beneath his dignity to animadvert upon particular persons. In certain cases where almost implicit faith and idolatrous reverence had been given to certain authors he as freely attacked and refuted their opinions. He apologizes for the plainness of style and manner with which the performance is written, especially since to avoid the contagion of opinion he had read no medical book for five whole years and had scarcely consulted the monuments of ancient elegance for twenty. There is a great deal of animation and

force in his argument against plethora, from the ninety-fourth to the ninety-eighth section.

In the hundred and fourth section he opposes in decided terms the tonic or astringent operation of cold, particularly as causing constriction of the skin; and repeats the same in several places (180-182), denying that it acts as a stimulant.

In his reasoning against lentor in the fluids as a cause of disease he rejects the pathology of the fluids and declares that cool water, pure air, wine and peruvian bark resists putrefaction in no other way than by keeping up excitement.

In remarks upon spasm he endeavors to show that it cannot be a cause of disease either of the sthenic or asthenic kind and ought, of course, tob e rejected from both, as should also what has been called the reaction of the system in fever.

He is everywhere opposed to that classification and arrangement of disease which has so much obtained of late and closes his work with the words "Nosologia delenda."

He published a second edition in the year 1788 adding thereto the asthenic class of diseases. Taught by experience and observation in the different forms of the gout and asthenia, of the benefit of stimulant remedies, he had no hesitation in considering them among the effects of weakness; as were likewise fevers strictly so called (febres) both intermittent and continued and all kinds of hemorrhage. In short the consideration of the diseases not belonging to the sthenic class convinced him they must be referred to the asthenic. Such were all spasmodic or conclusive ailments, dyspepsia and other like affections of the alimentary canal and the greatest part of the maladies of children.

In this performance too he contends against the advocates for sedatives. Opium he declares has a stimulant operation; cold or catarrh are produced by heat succeeding to cold and not to heat or *vice versa*. He extends his laws of animation to the vegetable creation.

There was in the medullar nervous matter and muscular solid or living bodies, which have been generally

called the nervous system, a property by which they could be affected by outward agents as well as by their own functions in such a way as to produce the phenomena peculiar to the living state. This capacity of being acted upon is termed excitablity and the agents are all denominated stimulants while the effect produced by the operation of stimulants upon excitability is called excitement.

Excitement terminated in two ways. 1st. By the exhaustion of excitability through the violence or continuance of stimulus which is called indirect debility. 2nd. By the accumulation or excitability through deficient stimulus which is termed direct debility. Between the two extremes of indirect and direct debility are experienced both health and diseases of the sthenic kind, of those febrile complaints (pyrexiæ) accompanied with what had been called phlogistic diathesis, wherein though the excitement considerably exceeds the healthy rate, still it does not reach the limits of indirect debility.

Stimuli lose their efficacy after long and frequent application but even then the excitability exhausted in relation to one stimulus is capable of being acted upon by another. Therefore the waste of excitability after exhaustion of one stimulus after another is very hard to be repaired by reason of the difficulty of access to fresh stimuli to work upon the languishing excitability which by being applied strong at first and gradually weakened afterwards answers the purpose. The superabundant excitability left by subduction of one stimulus after another, produces such an excitable condition of the system that much nicety is requisite to wear it gradually away by application of very weak stimuli at first and by degrees stronger and stronger until the accustomed ones can be comfortably borne. According to the Brunonian doctrine diseases appear under various modifications. Thus they may be: Universal, such as primarily affect the whole constitution, as fevers, etc. Local, where, from limited morbid affection, a particular part labors without disordering the entire habit; as trifling wounds, phlegmons, etc. Loco-universal when from a local affection the whole

body is eventually brought into a diseased condition; as in lues originating from chancre, small-pox from inoculation, etc; universo-local, as if, after a general ailment any particular part or organ is affected in a secondary way, as the eruption of exanthematous pyrexiæ, syphilitic blothes, etc. And each of these forms of diseases either in direct debility; as in scurvy, hunger, cold, etc.

Sthenic diathesis; as in pleurisy, other forms of synocha, etc. Indirect; as in old age, intoxication, fatigue, etc. Direct debility added to indirect; as in gout very often and in many diseases of advanced life. Indirect debility added to direct, as in overfeeding a famished person, etc., do in most diseases of infants and young persons.

Comparing this view with the opinion of the old Methodists can it be said to be a mere revival of the practice of Themison and Thessalus? Surely they who have so asserted can never have given themselves the trouble to examine.

Yet with all this novelty about it, Brown's doctrine proceeds not far enough beyond general principles which by reason of their abstract or speculative nature have not been found closely enough applicable to the subjects of pathology and physiology. He takes for granted that the nervous system is always one and the same excitable thing. He says scarcely any thing accurate on the different qualities of the blood and circulating fluids and of the secretions, and gives no specific detail concerning the mighty influence of the respiratory and digestive processes upon the animal economy. He passes over entirely the chemical composition of food and drink, of inhalations and excretions of gases breathed and remedies swallowed. He has not a sentence on the composition of bone, muscle, vessel, fat, lymph or gluten nor how variously these are affected by the disease, nor in what their healthy differs from their morbid state, nor by what means the alterations they undergo are brought about.

These and other omissions and defects in the Brunonian System called for amendments which was begun by

attending to the varying conditions of the living solid and the concomitant state of the fluids.

The establishments of the new nomenclature of chemistry in France in 1787 may be considered as forming a new epoch in science. Since then language has been adapted with greater accuracy to the expression of ideas and philosophical investigation conducted with superior advantage and success. Lavoisier in his Elements of Chemistry has attempted the explanation of the putrefactive as well as the fermentative process in the organized forms of animals and of plants upon the modern principles and in a natural and convincing manner has proceeded a great way beyond any one who undertook the explanation before. Spallanzani in Experiments on the Concoction of food in the stomach and Crawford in application of the Principles of Combustion to the function of lungs in breathing, had given excellent specimens of this mode of reasoning on physiological subjects. Great progress has been made since in detecting the nature and properties of the atmosphere, the gases and aeriform fluids; and the right knowledge of these derived from experiment and observation, has furnished the means of expounding many of the animal functions in a plain happy manner.

We do not merely know at present this, their gaseous production (pure air), is necessary to the preservation and continuance of animal life; but that it is a compound substance and what its compound ingredients are. It can be made artificially and nature is doing so incessantly. The term "dephlogisticated air" is not accurately nor logically applied. Judging from its tendency to produce sourness when combined with other bodies, we call the basis of it "the acidifying principle" and the combination of that base with light and caloric 'or the matter of heat "oxygen, gas or air" or more properly "gaseous oxyd of light."

From knowing the operation of this oxygen or principle of souring upon various bodies we know the composition of acids and have made out a considerable list of acidisiable bases so that the formation of fixed air from oxygen and carbone or charcoal, of nitrous acid from it and

azote, of vitriolic acid from the same and sulphur, and phosphoric acid from its union with phosphorus seem to be well established truths. A certain other class of bodies capable of combining oxygen but not to the point of acidity forms thereby half acid or oxyds; thus the calces of metals, animal blood and secretions as well as the farinaceous, gummy and mucilaginous parts of plants are formed.

The composition of water is understood. Instead of being an elementary body as was formerly believed it is but the oxyde of hydrogen or a combination of this latter substance with the principle of acidity but not to the souring point.

It is considered also that more is known concerning the composition of irritable fibre, of adipose matter and of bones. The effects produced upon the circulation fluids by breathing, and through them upon the solids of the animal body in health and the alterations too that the liquid and firm parts undergo by impeding, vitiating or obstructing that function, in ordinary cases as well as in gravid females, are now better comprehended than they used to be. In as much that after the great light thrown upon the subject succeeding authors have been enabled to dress up the Brunonian System in the more recent fashion and to supply and adorn it with almost all that was wanting to make it additionally engaging and attractive. Drowning, suffocation, scurvy, stone, dysentry, pestilence, ulcers and fever have already received great elucidation both in theory and practice from the application of chemical principles. Before many years elapse better and more correct ideas will be entertained of many articles of the materia medica and of their manner of operating. A new medical nomenclature (than which nothing in science is more wanting) will be made out. From the ascertained condition of the body and the known composition and operation of remedies, physicians may prescribe fairly for the actual state of the constitution and the removal of the present malady, without being misled as too often happens at present by specious words and idle or deceitful names.

But notwithstanding the many and beautiful applications of chemical principles to the explanation of the animal functions we are not to imagine everything in life susceptible of chemical interpretations. What it is that enables the atom composing a muscle to cohere and the muscle to contract and perform great exertions of strength we know not; but we can never form a muscle by synthesis or the putting together in any artificial form those substances which appear from analysis to constitute a muscle. There is something in animated existence which eludes our most active researches and which denies submission to either mechanical or chemical laws. With respect to chemical modes of reasoning upon these subjects it is observable that they apply with their greatest extent and accuracy to such parts of the body as have the lowest degree of animation, as the contents of the intestines, teeth, bones, fat, substances adhering to the skin and, generally speaking, the circulation and secreted fluids; while the qualities of muscular fibers by which they become contractile, and of nervous expansions whereby they take on sensation with the whole of the functions arising from irritability and sensibility are referable to other and different laws.

The investigation of these laws of organic life is attempted by our learned and ingenious Dr. Erasmus Darwin in Zoönomia, which, though not exempt from fanciful and visionary doctrines, presents considerations of the first importance both to the speculative philosopher and the practical physician; to him who contemplates the operation of mind as a science or to him that attends to the corporeal functions as an artist. The second part of this work is also engaged in an arrangement of diseases, with their remedies and modes of treatment, and will be very acceptable to the practical as well as the theoretical physician. After the different projects for methodizing this department of knowledge which have successively been offered to the public with so little advancement of true science the friends of medical improvement and of the healing art will joyfully accept of something that promises to lead them from arbitrary system

to natural methods. And as the distinctions are founded upon the increased, decreased or diverted actions of the moving machinery of the body, it will instantly be perceived how closely the Brunonian doctrine is interwoven with the whole subject. It is, however, to be always borne in mind that in American diseases the physicians of this country have generally written the best.

MORPHINISM AND CRIME.*

By T. D. CROTHERS, M. D.,

HARTFORD.

Superintendent Walnut Lodge Hospital, Hartford, Conn.; Professor of Diseases of Brain and Nervous System, New York School of Clinical Medicine, Etc.

IT IS estimated that there are over a hundred thousand morphinists in the United States and Canada. Some of the evidence on which this is based comes from the increasing demand for morphia and sales beyond the legitimate requirements of medicine. Also on the rapid growth of the number of morphinists seen in both private and hospital practice. Many of these cases are secret users of the drug, whose addiction becomes apparent from accident or disease. Morphinism appears more frequently among the better classes of society and those who have been successful, and particularly among the brain and nerve exhausted, and those who have suffered from excessive strain and drain. The morphinist is perpetually seeking relief from states of discomfort and pain, and every impulse turns on this fact in his life. This impairs his reliability and sanity, hence he is unable to describe accurately events and his relation to them. His conceptions of pain are largely imaginary and anticipative. The mind is impaired and the ability to analyze the impressions, both from objective and subjective conditions, is enfeebled. Facts and conditions become exaggerated and distorted, hence cannot be discriminated accurately. Sometimes his mind may act logically from

*Read at the Pan-American Congress at Havana, February 4, 1901.

given premises but his inability to determine the accuracy of the impression is followed by error. In addition there is an increasing egotism, which makes him dangerous as a witness. False impressions are accepted without question, and grow to be realities in his mind; as an example, suspicions of infidelity, intrigue and attempted injury are accepted as facts from which he may reason naturally. This incapacity to discriminate is marked in many examples of persons who swear to injuries which are found not to have occurred; also in the making of wills, selling of property, execution of papers—all may be based on faulty impressions which the brain is unable to determine. Often under those delusional states assaults may be committed, which seem to be justifiable or else are denied as not having occurred. The morphinist has a feeble ethical sense; his conceptions of truth and consciousness of right and wrong grow weaker with the continued use of the drug. This failure is first in regard to the addiction, then later it relates to matters outside of his own life. Most morphinists exhibit the most childish prevarications and misrepresentations concerning their use of the drug. Along with this are associated perverted conceptions of their relation to others. It is said that morphin taken by the needle leaves the mind more debilitated in the higher relations than when taken by the mouth. Dr. Guimbail, in a study of some criminal morphinists, drew the following conclusions: First, morphia causes defects of attention and paralysis of the will. Second, the ethical sense to distinguish between good and evil is blurred. He is unable to discriminate; this sense is lost in many cases and the victim is unable to act from any moral basis. Third, his free will is lost and power of control over the impulses is lessened, hence he is dominated by morbid impulses, both physical and mental. Fourth, the morphinist is a genuine lunatic, as much so as the dipsomaniac, only more subtle and concealed. Fifth, the responsibility is always impaired because of the intellectual enfeeblement and diminution of the moral sense. This is very apparent when associated with de-

lusions and mental disturbance. There is no border line between responsibility and irresponsibility in morphinism. Each case must furnish the facts from which it is judged.

In a discussion which followed these conclusions it was asserted that criminality in morphin cases could be traced to some established predisposition and was not easily created in a healthy brain. In reply to this it was asserted that morphin destroyed the capacity of the victim to judge of his condition and relation to others; hence, the criminal tendency as well as to act in an unreasoning way was inevitable in all cases. The crimes for which morphinists are noted are usually against property and character, and seem to be based upon impulse, selfishness, skepticism and credulity. The action of morphin on the brain is so markedly a narcotic and depressant that few crimes of violence are committed. Kleptomania, forgery, swindling and misdemeanors of this class are most common. The impulse to procure morphia in any way and under any conditions, no matter how much suffering or pain follows to others, is dominant. In some cases the criminal instincts seem to have this as the one central motive of their life. Thus, in one instance, a morphinist stole, committed forgery, sought every method possible to take advantage of for the purpose of securing the means to procure the drug. There are many physiological reasons for the criminality of morphinists. First, The continuous narcotism and blunting of the sensory centers impairs the power of reasoning by obscuring and narrowing the impression of the senses. Second, The objective world is not correctly seen. The functions and organic activities of the brain are diminished and their vigor and acuteness lessened. Third, the waste products of the system are increased, and the power of elimination is retarded, and favorable soils are formed for the growth of toxins and poisons which are in themselves new sources of depression. These are clear from the facts that all morphinists have disturbed nutrition, anemia and exhaustion. Egotism and pessimism are the two conditions which obscure the meaning of things and make it impossible to

accurately judge of the nature and quality of acts. The selfishness and avarice of many morphinists seem the leading motive in their criminality. Their conceptions of life all seem to be controlled by acquisitiveness. Such persons are always slanderous, untruthful and take advantage with every opportunity, and the boldness and assertiveness of their statements give evidence of the weakness of the brain. Other persons show cunning in a studied appearance of honesty and efforts to cover up their acts and conduct. Like others of this class their efforts will lack consistency and soon betray themselves by the foolish disregard of some essential particulars. A morphin criminal will always show defects of reasoning which will betray his conditions, and particularly if he has reached the chronic stages of the disease. Capital crimes are rarely committed, and are usually associated with morbid impulses that reveal the morphin state. In the exhilarated stage noted in some cases of morphinists a sudden furious impulse may result in crime, but after this stage of exhilaration has passed the criminal impulse will take on the form of intrigue and cunning to secure the same end. This first stage is of such short duration and so uncertain in many cases that it cannot be depended upon for criminal purposes. Thus, a man who was given morphin and told to go out and shoot a supposed enemy started out with this impulse, but before he reached the place concluded it would be better to burn his house. The first impulse merged into the second stage of intrigue and cunning. Some morphinists show the very curious state of double personality. While fully under the influence of the drug they may act and talk as honest and innocent men, and when studied exhibit all the marks of dangerous, unscrupulous swindlers. Some of these morphin criminals are bold, audacious and cunning to the last degree when fully under the influence of the drug, but when the drug is withdrawn are cringing and childish in a marked degree. Many of the most dangerous criminal morphinists exhibit this strange combination of insanity and sanity in their conduct. At one time honest, frank and open, at another, cringing, tricky and idiotic.

Another class of criminal morphinists enjoy deception and take keen pleasure in efforts to conceal their motives and conduct. They have veritable manias for leading a double life. There are no theories which explain this condition other than that of some obscure palsy which breaks up certain brain centers, leaving other parts of the brain intact. Some of these cases manifest very curious delusions, which merge into criminal acts, but these are readily discovered from the want of cunning in their execution. Opium is rarely used for distinct criminal purposes unless in case of seduction. Here the general stupor and absence of sense impressions favor this result. Persons under the influence of morphin have less power of resistance to both physical and mental impressions, and will easily succumb if tempted. Sudden manias and deliriums followed by criminal acts should always suggest inquiry concerning the habits of the person. If morphine is used the irresponsibility can be established. Strange theories of motive and conduct, unsupported by facts and natural conditions, are often found to arise from concealed morphinists. Thus, witnesses on the stand will give extraordinary testimony, at variance with the natural order of events, and believe that they are correct. Later it will be found that this evidence is the result of delusions. As a witness the morphinist is a very dangerous one. His memory, sense impressions and reasoning are so inharmonious and feeble that his impressions of an event will always be open to doubt. As a criminal he is not to be governed by the general rules of crime. There is a strange compound of delusion, morbid impulse and sense hallucinations which make the crime peculiar and readily apparent from careful observation. He is practically incapacitated to realize his condition and adjust himself to his surroundings. The fine shadows, uncertainties and doubts which attend the ordinary human transactions do not appeal to his brain, hence he imagines they do not exist. Questions of duty, of obligation and law are vague, uncertain and doubtful qualities. They never appear absolute and positive to him. His

egotism rises above all considerations, and the more defective he becomes the more positive his convictions of strength and ability. This is practically paralysis of the ethical brain and the centers of volition associated with weakness, prostration and debility; hence, the criminality of the morphinist differs from that of all other criminals. The continual enfeeblement of the coördinating brain centers deepen with the continued use of morphia, and with this all distinctions of duty and consciousness of right and wrong fade away. This is one of progressive degeneration while the coarser organic operations of the body may be little disturbed. Crime is, in these cases, simply the suppression of the higher coördinating centers. While the intellect may not be disordered to the extent noted among the insane of large asylums, there is a paralysis present which makes them even more dangerous than the insane because of the confusion of motive and thought. The legal responsibility of these cases is misunderstood and seldom realized in court. The superstition that demands a full measure of accountability and assumes that the use of morphia is a voluntary act in which the patient is conscious and capable of control is contradicted by all study and experience. Crime is a natural outcome of the anæsthesia of the brain, and curiously this fact is sometimes realized by the victims themselves. Thus, an eminent judge, who was clearly a morphia-taker, charged the jury that morphinism was a disease and all persons using it were incompetent in all matters requiring judgment and skill. Also that they were irresponsible and should not be punished as other persons are. An expert physician, who was a secret user of morphin, swore positively to the insanity of a criminal who was a morphia-taker, and sustained a very minute cross-examination while he himself was under the influence of the drug. The fact that the criminal uses morphia should be taken as evidence of his mental disability, the treatment for which should not be punishment in jail but confined in an asylum until recovered. There is a large class of morphinists who use alcohol alternately. They are still

more dangerous and irresponsible. In the near future they will be recognized and treated as insane. It is one of the great problems which confronts our new civilization, to deal practically with these drug-takers, not only for the protection of the community, but for the prevention of crime through their disability. Crime in morphinism must be studied from the physical side and not as a question of theory or rulings of law or judges, but as a question of fact. A new jurisprudence is demanded, and a new scientific study from a higher plane is called for most urgently today.

THE LEGAL DISABILITIES OF NATURAL CHILDREN JUSTIFIED BIOLOGICALLY AND HISTORICALLY*

By E. C. SPITZKA, M. D.,

NEW YORK.

80 One cannot but sympathize with the "gentleman moving in good, and even high society—as thorough a man of the world as any in London—who had the misfortune to be a natural son" and who called on Macaulay "to make a formal remonstrance on his having used the term 'bastard' in his 'history' and earnestly entreated him not to sanction so cruel an epithet with his immense authority" (Trevelyan's Life and Letters, etc., 11, 381). But what was Macaulay to do? Certainly a most ill-chosen instance with which to institute the more sanctioned usage of natural, had been the Duke de Maine, of whom the passage in Macaulay's book speaks, to whose circumstances and those of his parents certainly any other term had been more "natural." To maintain relations with the later titled Montespan, to employ all the forces of a king to separate her from her husband, to have Harlay prostitute his chancellorship in behalf of the children but against their mother, (Note 55) to discard her in favor of her own beneficiary the Maintenon, were conceivable only under conditions involving the highest refinement of artifice and widest departure *from nature*. In addition Maine was that sort of a son to whom as the Duke of Richmond the term "unnatural son" was eminently applicable, since the former willingly—even anxiously—consented to be the messenger of his mother's disgrace; while the latter turned his back on his, after having gotten all out of her he could. See H. Forner on *Louise de Queronaille Duchess of Portsmouth. How the Duke of Richmond Gained His Pension*, London, 1887. Strictly *nothus* signified an illegitimate child whose father was identifiable and known as such. One born of a low woman was characterized as "*poelice ortus*" or "*ex poelice genitus*." A *nothus* became *legitimatus* when acknowledged and adopted by his father. Zacchias (*Questiones medico-legalis*, p. 254) treats

*Continued from October 1900. Notes referred to in text of preceding numbers.

of the children born of a strumpet under the declaratory caption "*Ex publice meretrice nati dicuntur vulgo concepti;*" and says of them that they are not privileged to claim any particular one whatever, as their father, not being—as it were—able to designate such a one. "*Meretrices publicae Filii certum patrem ostendere nequent.*" (Regarding the interpretation of those terms in Zacchias obsolete or rarely used I am indebted to Professor Charles Herberman of New York College). *Spurius* was applied to bastards whose parents had not lived in regular concubinage; or, as the Romans expressed it, had met in the baser walks in which "increase and multiplication" is possible; such were *vulgo quaesiti*. Those still more unfortunate in having for mother a meretricious woman were designated as *ex poelice natus*. The first, the "clandestine"; the third, the meretrix born of my tables corresponds to —with this addition, that I had included in one class with the meretrix-born those born under the constellation of Venus vulgivaga. I became aware of the need of a separation too late, although the figures had become large enough. I would in case of repeating this study separate; (a) The offspring of Hetairaé; (b) those born of actresses, who seemed to have realized repeating in real life the career of their favorite roles, like the Cleopatra-caricature, mother of Damala. (See also Note 13, Rahel). The two tragical suicides from virtuous motives; a brother of Laboissière, like him illegitimate son of Ninon d'Enclos killed himself in making the horrible discovery too notorious to detail; the daughter of the Roman *belle esprit* "Imperial" did the same to escape the annoyances of an ardent rake, were born of mothers representing an intermediate class (c) the courtezan in the strict sense of the term (d); the "common-law wife" (e) the *fille de pare*.

81 Or kinship strangely and wonderfully made! For example, let us follow up the ancestry of that Caesarion, summarily executed by order of Octavius, and whose parents were Caesar and the notorious Cleopatra. Caesarion was half-brother to the illegitimate twins "Sun" and "Moon" and to another Ptolemy, (See text, October fascieulus). His mother was the legitimate daughter of parents both illegitimate: Ptolemy Nothus and Cleopatra Tryphaena (her natural half-sister). Cleopatra herself had successively married both her brothers, poisoned one brother-husband, caused the downfall of the other, and procured the poisoning of her sister Arsinoe. Her bastard father's parent, Ptolemy Lathyrus, was the offspring of a rape ("made good" by later marriage) committed by Ptolemy Physcon on Cleopotra III. The latter had been previously his step-niece and full niece, later his step-daughter; for he had first married Cleopatra II, mother of the Third by her first husband-brother of the *full-blood*, Ptolemy Philometor. The relations are sufficiently complicated, and to remember a diagram were desirable; but as it would require three dimentions of space, paper allowing but two, I shall try to make it clear by symbols. Let A represent Ptolemy Philometer and B, Ptolemy Physcon; C and Y respectively Cleopatra II and III; O and R the brother and sister, parents of A and B. A is at once nephew and son each, of C and R; he is brother and husband of C; and leaving relict C, she is at once niece and daughter Y, B, his brother previously

brother-in-law and brother also of C; marrying C, made A his deceased brother also his posthumous brother-in-law and C his wife, his sister-in-law, when the latter became his sister-in-law in one person with wife. He discards her, marrying Y, his niece, step-daughter and step-niece; making her the sister-in-law of her mother (who had been married to brothers of the same generation) and making his first wife his mother-in-law and aunt-in-law in addition to her other positions. As C had had children by both fraternal husbands, the reader may conceive the further entanglements of their relationships and difficulties of realizing *all* those of the children of C and Y to each other, for Physcon had such by both wives—and murdered a few of them!

82 There are a number of casees among the Ptolemies and Selucides; one among the latter, though attributed to another than the notorious real offender, is referred to in the play, Pericles Prince of Tyre. Casanova in his memoircs relates his all but consummating a like union with his daughter Leonida. The case of Lake, who procreated a bastard daughter (and grand daughter in one person) as well as four other children with his natural daughter, led to the commitment of the two mentally unsound victims to the Middletown Asylum during the superintendency of its present chief, Dr. Selden H. Talcott.

83 It is my agreeable duty to acknowledge a summary of the laws and decisions affecting succession and property in connection with illegitimacy as they stood up to the date of the reading of the paper, kindly furnished by Mr. Charles McGregor of the New York Bar. I have not at hand this moment more than the skeleton of an interesting decision *in re* State v. Schoemaker, Supreme Court of Iowa, which is to this effect: "Where a man marries a woman, knowing that she is already with child by another man, he is held to adopt the child into his family and the law holds him liable for its support, as one standing in *loco parentis*. No action can, therefore, be maintained against the natural father for its support as a bastard." The decision was in 1883. The practical reasons underlying this seem to have been, the marrying of adventuresses to persons bringing bait in their name of a speculative nature against wealthy fathers to whom the procreation of pre-connubial children was imputed. It also disposes of some complications arising from substitution of children—one such, recently brought to me for an opinion, hinged on the simple question whether negroid characters could be detected in a very young infant.

84 What a prominent topic illegitimacy must have been in the earliest period of a municipality whose very senate was compelled to recruit itself (*Patres conscripti*) from the ranks of those who could not mention their fathers, may be inferred from the frequency with which certain names recur. The dictionary signification of "Tullius" corresponds accurately to the origin of that king, whose appearance in the house of the Tarquins required an apparatus of legerdemain and miracle which constituted it a veritable

transition between the tale of Rhea and that of Fausta. Had a Roman City Directory been materialized, its pages of *Spurii* and *Varii* would have not added to it; as honest Smith and Brown make ours bulge to-day. *Varii* was originally *Varius* and in what sense used, is shown in the case of Elagabal; whose nickname at school it was owing to the variety of paternity he might have claimed: "*Quod vario semine de meretrice utpote conceptus videtur.*" Whoever wishes to locate the *Spurii* will find them mentioned whenever the spoils of office were divided, after civic commotion or other crisis—about forty may be thus found in Livius' history. Perhaps the remarkable number of *Posthumii* is not altogether unconnected with our subject. Curious combinations resulted from the Roman system of naming, such as *Spurius Spurius* and *Spurius Posthumius*. While the name of *Alimentus* (Marcus Cincius A., in Livy iii; and Lucius A., ib. ii) is suggestive enough, yet in cynicism the old were outdone by the later Romans. There is a document extant, relating to Forfa (a city, by the way, abandoned to the Mohammedan invaders through *nepotic* neglect, but treated by them with care of the beautiful buildings which were ruined by the bantlings on evacuation by the "heathen"); it is a Placitum of Nicholas II, dated April 28th, 1060 A. D. and one of the signatures appended is that of a Roman nobleman: Ratterius Adulterinus! The nearest approach to this in more recent nomenclature, occurs in Holland and England; the navy of the former had an Admiral Bankert; that of the latter, a Captain Bastard.

85 The Franks, with whom the question of bastardy seems to have been one of uncommon prominence, had among their legal tests the ordeal of the shield. The concave buckler of the father, the child born to whom was of disputed legitimacy, was used as a float—if it remained on the surface of water with the child, it was pronounced legitimate; if it sank, spurious. This seems (?) a recognition of the greater weight of natural children, and of the wisdom displayed by the mothers of Karna, Sargon and others in giving extra depth to and protecting against leakage their bantling-bearing craft. There must have been some reasons for regarding as crucial and dreading this test on the part of the worthy descendants of Basina and Clovis. Fredegunde when the legitimacy of Chlotar II, who was posthumous to her husband Chilperic, became doubted, did not appeal to the ordeal. Instead she had three hundred Frank champions make common and solemn oath to Chlotar's legitimacy (We are not informed where the Court Jester was the while). Transmitted bastard character was well illustrated by Hugo of Provence as exhibited in this field, wishing to marry Marozia (his first wife obligingly dying shortly after this wish took form) he could not do so on canonical grounds, as Marozia had been married to his brother. He therefore imputed unchastity to his mother and asserted the illegitimacy of her three other children. One of these, Lambert, appealed to the ordeal of combat and obtained the victory. Hereupon Hugo had him privately made away with; married the second Messalina; but encountered a superior antagonist in her son by another marriage, Alberich. The latter's own son and

successor was the third of the series of consecrated criminals beginning with Sergius II and continued by John XI, as John XII.

86 Bribery, direct or indirect frequently an ingredient of the "first causes;" bribability and bribing, like vanity and sycophancy, as complements of each other, become consequential features in the "results." See also Note 66.

87 In addition to those named in the text and Arthelaus, slain against Consul Gabinius, Caesar Borgia, Berwick, Griffo, Lysander, Manfred, Tancred of Bethune and Visconti (Ambrosio), mentioned in other relations, the victims of the battlefield include: Zierotin (of Russian not of the Czech family); Colonna (Geronimo); Sulkowsky, and the Pipin referred to (clerically erroneous) in Note 40. This should read "Zwentibold who engaged in rebellion like the nothus of the third Pipin (Bernhard, King of Italy) and perished in tumult like the other son of Charlemagne of the same name." This fourth Pipin was by the concubine Rothrud.

88 A victory nigh as far-reaching in result as Lepanto's was that off the isle of Monte Christo gained by Enzio (Note 59). The eccentricities of sailors have at all times been regarded with good-humored indulgence, as the recognition as inheritors of Sir Edward Spragge's three illegitimate children by Parliament (Pepys) and the treatment of Nelson's daughter Bronte show.

89 Examples besides several cited in the text, are Tancred of Lecces a second Manfred; Matthew the bastard of Bourbon, spoken of as the bravest knight in the army which included Bayard; Antony, the bastard of Burgundy; Count Burgau, an Austrio-Welser; Richard *Sans-Peur*, known as "Longsword" and to be distinguished from another "Longsword" with whom he had chivalric courage and illegitimate birth in common, William of Salisbury, born by "Fair Rosamond"; Count Nassau of Beverwort; Vaudemont; Marshall Augereau, who was thanked for services somewhat like Morny's to Verhuel Napoleon, by being denounced for a second treason in Bonaparte's manifesto on his return from Elba. If Claudius, the later emperor (A. D. 268-270) was a natural son of the younger Gordian, the victor of Naissus would have to be included here also. Archelaus, tyrant of Agae and Pella, showed exceptionally high talents as a military road constructor (on the excellent authority of Thucydides; History of the Peloponesian war). But this assassin of the legitimate successor of Perdiccas II and sycophant-seeking patron of Euripides, Agathon and Zeuxis, was in his turn assassinated (B. C. 399) before he had an opportunity to exhibit much strategy in the field. Marshall Beresford, the hero of Portugal and Albnera, was also a natural son; likewise Richmond "Red Alan" and the victor of Lincoln (A.D. 1139) Robert Earl of Gloucester.

90 Among other marital affiliations of this strange period were that of

Sancia of Aragon and Jofre Borgia, both illegitimate. What the outcome of such alliances was likely to be when genuinely consummated Gian Galeozzo Sforza and Pompea showed. What they resulted in, when regarded as a mere cover of other relations, may be inferred from such facts as that the above Sancia (there was another natural child of the same Christian name, whose putative father was Charles VIII. of France) when the Borgias with Cardinal Sanseverino and the Prince of Squillace had to fly Rome, preferred "allowing" herself to be abducted by Prospero Colonna to joining the second, her husband. Notwithstanding such experiences of others, J. J. Orsini, after the death of his first illegitimately-born wife, Maria Cecelia of Aragon, married a bastard daughter of Rovere (Julius II.) who as Felice Orsini became renowned for as adventurously spirited a career as the mother of another Orsini (Laura, niece of Alexander Farnese and adulterine daughter of Roderigo Borgia) Julia Farnese. Laura married at the same place and time (1506) Nicolaus Rovere, nephew of Felice's father. This Felice exemplified the rapacity and unfilial calousness of bastards. Taking advantage of her father's being in a moribund state, she endeavored to extort a cardinal's hat for a uterine brother. Thus also Teodorina Cibo and Franchessetto, her brother elsewhere referred to, (Notes 50 and 74) acted to Innocent VIII. Curious complications and more grave results grew out of these bastard groupings: Henry the Second of France, in his ceremonial relations with the Court of Florence, had the choice of addressing its prince as his half brother-in-law or as his uncle-in-law; the alternative of the paternity of Aleassandro Medici lying between his wife's father and her grand-uncle Giuliano, also a nothus. In this predicament of affiliation with either the singly or doubly tainted he might find consoling companionship with imperial Maximilian, who took as his second wife the bastard descended Blanca Sforza. The world saw the symbolic number in the Medici coat of arms in complete repetition; a "third pill" had to be swallowed by France in the shape of a second queen in whose veins flowed Medici blood, she being descendent of the half military, half diplomatic adventuress, half man and half woman: Catherine Sforza. Her second marriage had borne as fruit that Medici known as leader of the "Black Band" who died in the arms of the nothus Aretin! His great-grand-daughter Maria Medici shared the throne with King Henry of Navarre. This king's ancestry had come into previous contact with the bar sinister; Caesar Borgia, after having been peddled around the royal marriage mart and rejected by all possessing a trace of self-respect (as was Louis Napoleon under like circumstances) married an Albret. The Maria Medici afore-mentioned is not to be confounded with another Maria Medici, who was an illegitimate in her own person, and a daughter of Lorenzo, the "Magnificent."

A role similar to that played by the Medicis in France, was enacted also in Poland by the similarly tainted Sforzas. A grand-daughter of the, in birth, symmetrical couple Francesco and Bianca: legitimate daughter of their matricidal son, Gian Galezzo, was the second spouse of Sigismund I. This "covetous and corrupt Italian" was the source of endless mischief. Among other performances she loaned Philip of Spain several hundred thousand

florins which the latter never repaid; Bona, however, was not the loser, for she had merely taken the money from the Polish treasury. After a career of like criminal presumption and intrigue she returned to Bari in her native Italy; here she was poisoned by one of her paramours. In mentioning her Visconti grandmother as illegitimate, it is to be stated that the latter, aside from a remoter precedent in bastardy, the Condottieri Ambrosio (ALIENIST AND NEUROLOGIST, January, 1900, pp. 126, 148, 149 and Note 87) had such in an uncle Gabrielli, who was *nothus* of the first Duke (1396 not to be confounded with Matteo I. the first "Lord" Gian Galeozzo Visconti 1332).

When in 1473 bastard Ferrand of Naples' natural daughter, Leonora, passed through Rome on her way to meet her bridegroom Hercules of Ferrara (Este) the bastard Pietro Riario entertained her with a Lucullian feast. At the table were seven guests whose names I subjoin, the illegitimately born distinguished by capitals: 1, LEONORA OF ARAGON; 2, GIROLAMO RIARIO; 3, DUCHESS MARIA OE AMALFI néé Maria of Aragon; 4, Sigismund of Este; 5, ALBERTO OF ESTE; 6, Duke of Andria; 7, PIETRO RIARIO. (Gregorovius, *History, etc., VII, p. 235*). Similarly was Leonora's successor, Lucrezia Borgia, entertained, when on her way to wed her third (or fourth) husband Alfonso of Ferrara; but on this occasion the Riarios were outdone by Guidobaldo of Urbino; he received Lucrezia with processions, songs of welcome and an allegorical Judgment of Paris; the denouement of this was that, turning from the Goddesses, Paris gave the Apple to Lucrezea. This apple reminds one of the "Rose of Virtue" which has been in our day (1869) granted to Isabella II, whose legitimacy is generally declared to be like her morality in the same light as Lucrezia's. On the arrival at Ferrara, she stopped at the palace of *nothus* Alberto, to be received by a bevy of "Dames of Honor" whose selection had doubtless been determined by a desire to make Lucrezia feel comfortable; for the following among them were of illegitimate birth: Lucrezia, Countess of Carrara, Diana Countess Ugozini, Bianca of Sansevérino and Lucrezia Bentivoglio—making up with guest and host an even half dozen. In thus providing for the bride's reception Alfonso may have been mindful of other considerations than mere hospitality; at all events the *personnel* harmonized with the traditions of the House of Este. We have seen that the history of this ruling family of Ferrara was under auspices of illegitimacy. Of Nicolo's bastard sons occasion has been had to mention Ugo (executed, see Note 57) and Borso the "Magnificent." A third *nothus*—Lionello—reigned a short period before the latter. Nicolo's leaving legitimate posterity had been jeopardized by the identity of the already mentioned (Note 53) heroine of Byron's Parisina, who was of a house as distinguished in the person of Francesca di Rimini, heroine of a similar episode immortalized by Petrarch, as through its two able, attractive romantic, treacherous and sacriligious bastard representatives, Gismondo and Robert Malatesta (Notes 39, 65 and Vol. XXI, p. 124) and in addition the latter's Herculean son Cardinal Sanseverino. Borso's ducal successors, Hercules I and Alfonso I, married natural daughters of Aragon and Borgia respectively; both their consorts had been married before—Leonora to Sforza Maria, third son of the

illegitimately born couple, Francesco Sforza and Bianca Visconti; Lucrezia *twice* to natural sons, Giovanni Sforza who was Constanzo of Pesaro's son, and Alfonzo of Biseglia (murdered by Caesar Borgia). Furthermore, there was the illegitimate Giuliano of Este (Note 91, *Julian Este*) and later still the ducal throne became an object of dispute when Caesar, the son of Alfonso a nothus of Lucrezia's husband by Laura Dianti (who also bore a brother Alfonsino) seated himself on it against the interdict of Clement VIII. There was hence nothing derogatory to Este dignity in having as sisters-in-law the illegitimate Maria Cecelia of Aragon, Sancia of the same house, and a Girolama Borgia (married to Gianandrea Caesarina). It was consistent with the origin and custom of the Estes that the second Alfonso marry Hippolyta, a daughter of the illegitimate couple who were parents also of the aforesaid Sforza Maria. Nor needed the succeeding generation have been at a loss for material to follow these precedents. There was a *second* illegitimate Lucrezia Borgia, daughter of Caesar. As the Borgias, by the time she had reached maturity, were no longer in the ascendant, she entered a cloister, while her equally illegitimate brother—that is, illegitimate in a second generation—Girolamo Borgia became a priest who degenerated into mendicancy.

Coincidences while like the synonomy of the first and last emperors of both Roman and Byzantian Empire were altogether fortuitous, have also played their pranks in the annals of bastardy. When Philip II married Mary of England, two claims to the English crown were represented in the couple, and would, had they had a child, have united in one person. One was through illegitimate channels, Mary's claim being derived from John of Somerset (brother of Cardinal Beaufort), Exeter and that Joan of Beaufort, who became the grandmother of Warwick and ancestress of the Abergevannies: see also Notes 22 and 32. Philip's claim originated in one and the same person, John of Gaunt, father of aforesaid Somerset, who had as daughter by his first marriage, Philippa, wife of Portugal's John I "The Spurious," son of Pedro by the beautiful Inez de Castro, the victim of one of the foulest assassination plots chronicled. Thus Philippa was ancestress of the first-named, and as she went to the Peninsula might be confounded with another daughter of Gaunt's (by second marriage) who was born there and likewise had an illegitimate parent, her mother, Constanzia being a daughter of concubine Maria Padilla. Her father was Pedro, victim of his bastard half-brother Henry. (Note 21.) Both claims, it will be seen, though equal as to legitimacy in so far as they start in their descents from the person of Gaunt, are taintured on one side at least—Gaunt's son-in-law being a *nothus* and usurper of rights of the legitimate Beatrix of Portugal and Castile in the extra-territorial, as his son Somerset was in the domestic Lancastrian line.

If not making strange bed-fellows, illegitimacy has mated blood, whose original carriers would have experienced strange sensations had they possessed prescience. In the memoirs of a Hannoverian (Hannover, Germany, not Hanover, Ky.) officer, two W————ns are referred to. The mother was clandestinely conceived by a palace attendant at the Hessian Elector's

palace during its occupation by Jerome as King of Westphalia; he being her father. The prince of the restored Electoral House became father of a son W————n by this daughter of Jerome. Both were born at Versailles duplicate palace, Wilhelmshöhe near Cassel (Note 51). A greater antithesis than Jerome Bonaparte and the exiled and restored Elector cannot be conceived. An illegitimate granddaughter of Jerome is still living, as wife of an adventurer who played a questionable role in the troubles of 1866, she being suspected as the channel of Napoleonic intrigue, like the illegitimate daughter of an English Premier who about this period had her fingers in most of the intrigues connected with the Anglo-Austrian Bank and "1866": Madame De Bxxy.

Similarity of situation and inclination lead to aggregation in groups of kin spirits, a fact as true in the field of psychiatry of paranoics, persons of "insane temperament" and those instinctively perverted, as it is in life's field generally, even in its extremes, such as aestheticism and criminality. Equally does this apply to bastardy whose historical associations concentrate around special centers sometimes aided by circumstances more fortuitous than "like cleaving to like"—important factor as this remains. Strange series of bastardy's accidental associations may be traced, its links uniting across distant space and time. Two cavaliers visiting the salon of Madame Du Deffant, smitten with the charms of the actress Clarion—who was destined to follow one of them to his electoral capital, Munich—encounter that illegitimate daughter of Countess Albon, who was to illustrate bastard ingratitude by establishing a rival salon, and deprive her generous friend of influence and following. One of the cavaliers was Poniatowski, the father of adulter-Bobrinska (97) and the other an elector of Bavaria, of Lady Keppel's son, who, more fortunate than the organ grinder "Viscount Hinton," inherited the title of Lord Keppel, despite the disclaimer of the mother's husband. The intimate friend of the Espinasse was philosopher d'Alembert who as President of the French Academy delivered the eulogy referred to in Note 57, on a grandfather of one and father of two natural children. From Russian Bobrinska, English Keppel, French Espinasse and d'Alembert the chain of associated names thus extends to America's Franklin.

(*To be Continued in July, 1901.*)

SELECTIONS.

CLINICAL PSYCHIATRY.

PSYCHIC SHOCK.—What is generally known to the alienists as mental shock is now revived by the surgeons under the title "psychic insult" and used in explanation of sudden mental disorders resultant on psychic causes. Pagenstecher has called attention to (*New York Medical Journal*, July 28, 1900), a case of this kind in which a patient died from the assumption that he had contracted blood poisoning. Long ago Budd called attention ("Diseases of the Liver") to the fact that jaundice, following mental shock, long continued anxiety, or grief is often unattended by any alarming symptoms, "but now and then after it has existed for some time without any symptoms indicative of especial danger, disorder of the brain, which proves rapidly fatal comes on. After death, portions of the liver are sometimes found completely disorganized. It would seem that some virulent poison is generated in the liver, which deranges and then paralyzes the brain and after death come softening and disorganization of the liver itself." Tuke pointed out ("Influence of the Mind upon the Body") that the emotions powerfully excite, modify or altogether suspend organic functions. This influence is in all probability, transmitted not only through vaso-motor nerves but through other nerves also,namely, those in close relation to nutrition and secretion (*e. g.* chorda tympani etc.) As when the excitement is of peripheral origin (a sensory or afferent nerve excites their functions by reflex action) so when emotion arises, it may excite the central nuclei of such afferent nerve, and this stimulus be reflect-

ed upon the afferent nerve; or it may act directly through the latter. In regard to the processes of nutrition, the pleasurable emotions tend to excite them. Hence the excitement of certain feelings may, if definitely directed, restore healthy action to an affected part. Violent emotions may modify nutrition. Various forms of disease originating in perverted defective or inflammatory nutrition are caused primarily by emotional disturbance. As respects secretion, the emotions, by causing a large amount of blood to be transmitted to a gland, increase sensibility and warmth, and stimulate its functions, or they may excite the process by their influence on nerves supplying the glands.

Painful emotion may modify the quality (*i. e.* the relative proportion of the constituents) of the secretions. The emotions may check secretion, either by extreme acceleration of the blood through a gland, by unduly lessening its afflux or by direct influence upon the gland. Although, as a rule, the activity of those glands which bear special relation to an emotion, is in a direct ratio to its force, the secretion is checked when the emotion is excessive.

The pleasurable emotions tend to act only in one direction, that of increased activity of the secretions, but the painful emotions act both in stimulating and arresting secretion. Thus grief excites the lachrymal and rage the salivary gland. Excess of grief checks the lachrymal and fear the salivary glands, while anxiety suspends the gastric. Extreme fear induces perspiration. Practically these phenomena described by Dr. Tuke result from the arrest of control of the cerebral spinal system over the nervous system of the different organs. The condition known as "psychic insult" was long ago recognized by surgeons like Ambrose Paré who insisted on measures calculated to quiet the patient precedent to an operation. As Tissot pointed out a century ago:

> "The pained face of pity
> Creates in the wound morbidity."

The recognition of the influence of so called "psychic insult" was quite frequent among the surgeons of the first

four decades of the last century as Billroth has pointed out. They called the condition *delirium traumaticum nervosum*. The surgeons of the last half of the nineteenth century, relying too much upon the sedative influence of anæsthetics, ignored psychic symptoms until forced to recognize the formidable types of psychoses occurring after operations because of the operative furor due to anæsthesia and antisepsis. One result of "psychic insult" is lyssophobia which mimics to the full "even to fatality" the nosologic picture of hydrophobia. "Psychic insult" has long been recognized by alienists as a serious factor in the production of the fatal psychosis, typhomania or Bell's disease.

SEXUAL PERIODICITY IN A PARETIC DEMENT.—Some years ago Perry—Coste (Psychology of Sex Vol. II) discussing the fact that there was a clear monthly rhythm in the pulse of a man suggested that this seemed to point strongly to existence of a sexual periodicity in males. Of course this is in accordance with the general law that an action once occurring in a nerve tends to repeat itself. Féré admitted (*St. Paul Medical Journal* February 1901) that facts bearing upon the so-called sexual periodicity in men being rare, claims that pathologic cases are of importance in interpreting this condition. He cites two cases illustrative of this in paretic dements. A forty-two year old incoherent paretic is confused, stammering and mostly unintelligible in speech. He is paraplegic; the pupils are immobile and contracted, tongue and lips tremulous, hands trembling and incoördinate in their movements. General sensibility is irregularly effected: the knee-jerk is absent. The present condition followed apoplectiform attacks six months ago. The disease first showed itself in lapse of memory a little more than three years ago. The demented calm is broken by fits of periodic excitement remarkable for the character of their manifestations. Every twenty-eight days lewd words occur in his incoherent mutterings, followed by significant gestures. He endeavors to reach the genital organs of those about him. There is priapism and he masturbates unless prevented. Prevention of mas-

turbation produces furor during which he regains the power of pronouncing very distinctly erotic words. These periods usually last three days, generally beginning in the morning. During this time agitation is constant and insomnia complete. In the intervals there is excessive sleep and no sexual excitement is ever noticed. These attacks antedate the demented state. They have existed not only from the beginning of the disease but during his whole life even before puberty. Dr. Fere's second patient had some "eccentric" paternal relatives. The patient had suffered from morbid fears since childhood. Since his seventh year he had in every month one disturbed week during which he was incorrigible, agitated, irritable and would disappear from home without explanation. He married at 26. From the first his wife noticed periods of sexual ardor which for several days was constant night and day in marked contrast to the rest of the month when it only appeared under exceptional sexual excitement. Some years before the inception of the psychosis the monthly attack was attended by great irascibility. A craving for alcohol also showed itself. This patient had presented from childhood marked neuropathy. Are these phenomena of periodicity? asks Féré to be considered as pathologic symptoms, or are they reversal in a degenerate to a primary physiological type?

EROTIC HALLUCINATIONS.—Dr. E. Bellamy, of Bordeaux, states (*New York Medical Journal*, February 2, 1901) that erotic hallucinations constitute a frequent and important phenomenon of the neuroses and psychoses. They may be divided into genital and extragenital, according as they are occupied with the genital sense or with other senses. The first class is manifested by all kinds of particular sensations, from the impression of contact or of the slightest friction up to the most acute orgasm of normal or abnormal sexual act, the most horrible pains of violent sadism or the most complete symptoms of pregnancy and parturition. The second class is manifest by visual, olfactory, gustatory or tactile sensations of an erotic character. Erotic hallucinations are found in hysteria, in systematized

insanities, alcoholic delirium and among the degenerate. In hysteria they are as often extragenital as genital. The sense of sight is most frequently affected. Hallucinations occur in the dream state or in the subconscious condition either by day or by night. Frequently painful, they may be accompanied by voluptuous sensations. Related by the subjects with a luxuriance, a precision of detail capable of investing them with an air of reality, they have often served as a starting point for self-accusation or caluminous denunciation. They have a quasi-infectious property of communicating themselves. In the systematized insanities erotic hallucinations are capable of affecting all the senses. Those of sight are the most rare and imply hysteropathic or alcoholic basis. Those of smell and taste and especially of hearing are the most frequent and varied. There are also genital hallucinations, properly so-called, in which all possible sensations may be encountered. The erotic hallucinations of persecutor and delusional insanity, the type of systematized insanities, are especially painful and induce in the part of the subject when of the genital type, characteristic defensive actions, such as crossing thighs, covering of the sexual organs, stuffing of the vagina with rags, paper, etc. The subjects of toxic delirium, particularly alcoholic, frequently have erotic hallucinations; visual hallucinations, colored, mobile, multiple, most often tending to ideas of jealousy, visions of a wife or a mistress in indecent postures in the arms of a lover. The degenerates are rarely subjects of hallucination. An exception must be made of the mystics whose mental state, like that of the hysterics with which it may have much in common, is accompanied by a great number of cases of erotic hallucinations. These hallucinations, essentially of dream-like character, are genital or extragenital, and either voluptuous or painful, respectively regarded as a mark of divine favor or torture, according as they are attributed to celestial or diabolical agency.

A CASE OF DEATH FROM PSYCHIC INSULT.—With Remarks upon Delirium Nervosum Dupuytren, and Operation-Psychoses. F. Pagenstecher (*Philadelphia Medical*

Journal, Vol. V, 1900, p. 863). The results of psychic insults have been known to surgeons for some time under the name of delirium nervosum Dupurtren, and, more recently, of operation-psychoses.

Pagenstecher reports a case, which he believes to be the first of the kind reported, in which death was the outcome of a psychic insult. He gives the history of the case in detail, of which the following are the essential features: The patient was a merchant fifty-one years of age, who had never been ill or injured in any way. He was not a drinking man. One day while at his desk sharpening a pencil he cut his thumb and his pen fell from his ear upon the wound, staining it with ink. His nephew tried to wash off the ink and then the man went to a physician near by. He was very much excited and told the doctor that he was much worried for fear of blood-poisoning, as his ink was so poisonous. He complained of pain in his left arm and was anxious to notify his accident insurance company. The physician found, on the ball of the left thumb, four small vertical scratches, though all extended only to the true skin and could scarcely have bled. These scratches were each about one cm. long, and one of them was stained with ink. The patient wanted the doctor to amputate his arm if he thought it necessary. A dressing was put upon the thumb and the man went back to his factory. Later in the day he went home and complained of the pain in the arm. Then he went to see his family physician, who scraped away the ink with a knife and used bi-chloride solution on the thumb and put on a fresh dressing. The patient felt the poison working its way up to the axilla, and told his physician also to amputate the arm if it was necessary. After this dressing was put on the patient fell in a fainting fit, with profuse perspiration, and, because of this and because he thought he felt enlarged axillary glands, this physician thought that there were perhaps symptoms of blood-poisoning, but not enough to justify amputation. The patient passed a bad night and was very much excited when his physician called the next morning with an associate. He demanded amputation of his arm,

was delirious, had auditory hallucinations, made arrangements for his own funeral, complained of headache, and tossed restlessly about in bed. At this time his pulse was seventy, soft and regular; his temperature was not taken. After the doctors left, a nurse being with him, his face and mouth twitched and he crouched in the corner. When quieted he began to tell the nurse all about his private affairs. Then the twitching of his face and his nervousness began anew. The patient's face was yellowish-white and the pulse was regular. At 4 P. M. Pagenstecher was called to operate, and found the patient free from delirium, but most positive that he was going to die and that his arm must be amputated. He was fearful of the pain which would be caused by the removal of the dressing on his thumb, but said nothing when it was taken off. There was no sign of irritation in the wound, nor any appearance of infection or granular enlargement. The statement about the painful areas on the arm were very contradictory. The patient appeared weak when he sat up, and the twitching of the face and mouth was striking. He also demanded amputation from Pagenstecher. An hour later his pulse was seventy-two, soft and full. Two hours later the patient was in a moribund condition, the heart's beat being scarcely audible. Death was sudden and wholly unexpected. The heart continued to beat for one and a half minutes after respiration ceased. Blood-poisoning was ruled out by the results of the necropsy, but no real cause of death was found.

Pagenstecher's opinion is that the case was one of traumatic neurosis which developed into an acute psychosis. He thinks that death probably resulted from inefficiency of the heart, and doubts that it beat after respiration ceased. Two perfect examples of Dupuytren's delirium nervosum are cited in detail as illustrating less severe results of psychic insults.

Pagenstecher also discusses the predisposing causes of delirium nervosum and operation-psychoses and the cause of death in this case, and cites a number of writers who have written on these subjects. This patient had a large

amount of accident insurance, and the insurance company presented three theories against the claim, *i. e.:* (first) that the patient committed suicide by curare poisoning, (second) that it was a case of tetanus, and (third) that it was a case of acute hysterical psychosis. Pagenstecher agrees with the last theory, except in regard to the term hysterical.—Bonar in *Journal of Nervous and Mental Diseases.*

MENTAL SANITATION.—Smith (*The Canadian Journal of Medicine and Surgery*, December, 1900,) calls attention to the marked influence which heredity has in producing insanity, and charges that so much of the so-called literature of the present day conduces to an unsettled mental state. He concludes as follows: First, The public should be enlightened with regard to the nature of insanity in order that they may properly estimate the influence of heredity as the most potent factor in the causation of disease. Second, As a preventive measure the public should be taught that as the development of the morbid disposition is most insidious and is seldom recognized until late, the consideration of the family and personal history of the individual should demand and receive early and careful attention. Third, There must be full recognition of the variability of individuals for bearing burdens and enduring strains. Fourth, Many cases of insanity are justly chargeable to the imposition of burdens beyond the capacity of the individual. Fifth, The prevention of insanity is not promoted by merely studying the phenomena of the disease. Sixth, Public sentiment must be enlightened before any restrictive measures can be beneficially enforced. Seventh, If the conditions under which many cases of insanity originate were properly understood, many attacks of the disease might be avoided. Eighth, The study of child character and the careful consideration of the variability in the development of mental phenomena during the period of growth in the child are all important. Ninth, The steps necessary to secure the adoption of these and all other precautionary measures must first be taken by the family physician, who in the future must be prepared to advise, caution and restrain in

exercising his influence in the prevention of mental diseases. Tenth, The burden must be adjusted to the capacity of the individual in order that it can always be carried with safety when this is possible; and when it is not possible that the line of descent of every such defection shall terminate with the individual himself.—*Philadelphia Medical Journal, Abstract.*

MAZOCLASM [MAZOCLASTIA].—(*Arch. di Psichiat., vol. xxi, fasc. 3. Mariani, C. E.* This is a reference to a recent work of De Blasio (*Inciurmatori, maghi, e streghe di Benevento,*) in which that author publishes, from the judicial records of the middle of last century, an accusation brought against a priest of imposing mutilation of the breasts by the introduction of pins as a penance on the women frequenting his confessional. Mariani supposes that the priest suffered from a form of sexual perversion compounded of sadism and fetishism, and with De Blasio suggests the name of "mazoclastia" for the condition—a somewhat superfluous addition to the technical vocabulary.—*W. C. Sullivan's Epitome Excerpt for Journal of Mental Science, January.*

MURDERED WIFE AND THREE CHILDREN on account of the Amish religion. Under the impulse of imperative idea he thought his whole family would be better off dead and he killed them and attempted to kill himself. This is the history of Samuel Moser, murderer of his wife and three young sons last May at his rented farm residence near Tremont, Tazewell County, Ill. Moser's counsel plead insanity for his client. Moser confessed to the crime. Moser claims the church is in the fault. He says the church persecuted him in many ways; that it would not allow him to love his family, and he decided to kill his wife, children and himself.

NEURO-SURGERY.

BRAIN TUMOR OPERATION AND RECOVERY.—Dr. A.

W. Dunning, of St. Paul, Minn., reports the case (*St. Paul Medical Journal*, February, 1901,) of a sixty-two years old physician, actively engaged in practice. In June, 1898, he became conscious at times of loss of motivity in his left leg to which his attention was first called during a G. A. R. march; he being unable to keep step. Early in July he was seized suddenly with a very severe cramp in the left foot. This recurred at intervals within the four weeks following. By August there was involvement of the left hand and arm. He had several general convulsions. There was slight loss of power in both the arm and leg. The knee-jerk was exaggerated, especially on the left. Sensation was unimpaired. There was a slight daily rise of temperature. A diagnosis of tumor in the right upper Rolandic region was made and an operation for its removal advised. After some weeks of hesitancy the patient consented. By this time he had lost nearly all power of movement of both arm and leg. Convulsions had been frequent, both general and Jacksonian. There was great irritability of temper and considerable interference with mental processes in general. Dr. C. A. Wheaton operated September 3, 1898. A tumor weighing seven drachms was removed from the upper portion of the fissure of Rolando. It was so high up that it was found difficult to remove it without injury to the superior longitudal sinus. It was distinctly perpendiculate, the pedicle arising from the pia at the bottom of the fissure. Miscroscopic section revealed a large celled sarcoma. There was no return of power for three weeks. There was a slight infection of the scalp. A cranial wound delayed in healing necessitating a second operation in January following to secure closure of sinus which had formed. Three weeks after the first operation there was steady improvement. There were occasional convulsive seizures in the hand and arm, immediately on awakening, for some months. There were a very few general convulsions within the first eight months but for the last year and a half there have been none whatever. The power returned in the leg more rapidly and more completely than in the arm owing, at least in part, to unavoidable traumatism of the arm cortex in re-

moval of the growth. The mental symptoms disappeared entirely and for the past year the patient has been following the usual vocation in every way, performing the arduous duties of the busy country practitioner. The only evidences of disability in 1900 which Dr. Dunning could discover were a slight hitch in his gait necessitating a cane, part of the time, and some loss of the power and usefulness of the left hand. In this case the influence of the operation *per se* as it has been called by J. Williams White cannot entirely be excluded since recurrence of the symptoms has occurred at even a longer interval than that here reported.

CLINICAL NEUROLOGY.

BABINSKI'S PHENOMENON.—Morton Prince claims (*Boston Medical and Surgical Journal* January 24, 1901) that the frequency of the plantar (spinal) reflex, so far as it concerns the toes, has been exaggerated owing to several sources of fallacy being overlooked, namely: (First,) mistaking the cerebral for the spinal reflex; (Second,) in stroking the sole it is not difficult by moderate pressure over the first phalanges to cause a purely mechanical flexion of the toe; (Third,) if the stroke is made from the toe toward the heel pulling on the skin when inelastic will do the same. Morse concludes (*Paediatrics* January 1, 1901,) that there is no constant plantar reflex during the first year, and that while the reflex approaches the adult reflex during the second year it is still inconstant. It is also evident that since there is no constant reflex under normal conditions during the first two years no conclusions can be drawn from the presence or character of the reflex in the diagnosis of abnormal conditions of the nervous system at this age. Further observations are necessary to show at what age the normal reflex is established. It is undoubtedly later than the second year.

PARÆSTHESIAS AND INTERNAL ORGAN AFFECTIONS.

—Haenel reports (*Journal of the American Medical Association* February 2. 1901) certain circumscribed zones of hyperalgesia in cases of affections of the internal organs especially with gastric disturbances. They are evidently reflex and suggest an explanation for some of the nervous, rheumatic or hysterical symptoms of which patients complain. When found they substantiate the patient's assertions and confirm the existence of an internal affection.

POLIOENCEPHALITIS SUPERIOR.—At the December 1900 meeting of the Chicago Neurological Society Dr. Archibald Church reported a case of this disorder in a thirty-one-year-old cashier without hereditary taint or venereal infection according to the history. The patient for several years had used tobacco and alcohol freely (*Chicago Medical Recorder*, February 1901) working very hard, with short hours of sleep but indulging in considerable outdoor athletic exercise. August 19, 1899 in a very hot sun he played golf all day without a head covering. His forehead, face and scalp were severely burned and the hair bleached by the sun. On the second day thereafter he noticed dimness of vision in both eyes, was compelled to hold a book at a distance and there was also a double vision. Competent ophthalmologists failed to detect any trouble in the fundus. There was however a tendency to outward squint and some rigidity of the pupils. He was given mercury by inunctions. Two weeks later he came under observation showing a slight ptosis on the left side, outward deviation of both eyes and the pupils rigid to light and accomodation. Headache, vomiting, dizziness and other subjective disturbances were absent. The temperature, pulse, respiration, urine and blood were normal. He showed a littte tendency to oversleep and during the day would drop asleep while driving. He also impressed others as being a little indifferent to subjects of ordinary interest and was so as to the gravity of his condition. After twenty daily inunctions a slight amount of green disturbance appeared and the mercury was discontinued. On the thirtieth day after the onset of the symptoms his speech was a

little muffled. There was some incoördination when walking with the eyes closed. The tendon reflexes which previously had been normal showed increase. There was a slight ankle-clonus on each side. During the night he had involuntary urination. On the thirty-first day the divergent squint subsided, apparently through paresis of the external recti or involvement of the nuclei of the sixth nerve and the pupils commenced to dilate. Vision for distance was still normal but there was no accomodative capacity and the pupils responded to neither light nor accomodation. Static ataxia was decidedly pronounced. The temperature had a slight sub-normal tendency. There was mental hebetude. On the thirty-third day he was unable to stand, his pupils were dilated to the maximum, the eyes perfectly immobile and ptosis on both sides partially developed the temperature ran up to 100° 2. The next day double ptosis was complete and reflex excitability greatly increased so that the patient was almost tetanized as he lay apathetically in bed. Babinski's sign was noticed on both sides. The temperature was 101° 2 and the pulse 120. The next day all conditions were worse. There was some difficulty in swallowing, with coma most of the day. The following day the temperature rapidly ascended to 108° with at the same time a falling pulse and he died after twenty-four hours of absolute coma. The necropsy was absolutely negative except that there were healed foci of tuberculosis in each apex about as large as a walnut. On examination by Dr. Futterer areas of more or less well outlined softening in the corpora quadragemina, pons, peduncles, internal and external capsule principally on the right side were found. The area in the external capsule involved the claustrum in its anterior portion with an upward extension to the lower level of the cortex. The lesion in the peduncles are confined to their lower parts and are small while others involve the nuclei of the oculomotoris trochlearis and abducens. Changes are decidedly inflammatory. The blood vessels thickly surrounded by masses of leucocytes appearing in the midst of areas of degeneration. Here and there is also well developed hyaline degeneration of the walls of

the blood vessels. Dr. Church called attention to the fact that a series of cases showing graduation between acute polioencephalitis and asthenic bulbar paralysis or myasthenia gravis could be given from experience and the literature. In this case the sequence of events might be considered to be as follows: A tubercular lesion inducing some hyaline degeneration in the cerebral vessels, subsequently traumatism in the shape of sunburn, the action of toxic or infectious agencies producing inflammatory changes in an area of lowered resistance and polioencephalitis with additional foci of the inflammatory disturbance.

DIE URSACHE DES NEURASTHENIE.—(The Origin of Neurasthenia). L. Höflmayr (Deutsch. Archiv. f. klin. Med., Vol. 66, December 13, 1899, p. 492.) The author is not satisfied that neurasthenia is a form of nerve fatigue, and does not believe that severe nervous exertion produces a chronic effect in healthy persons, any more than a severe physical exertion does. He calls attention to the fact that epidemics of neurasthenia are not common after arduous campaigns, although, if the current theories are accepted, they certainly should be. He therefore falls back upon the auto-intoxication theory, believing that there are two sources from which the poison may be derived; either from the respiratory tract as a result of imperfect exchange of the gases, and he instances in proof of this the readiness with which neurasthenics become fatigued in impure air; or from the gastro-intestinal tract, as the result of the formation of poisons during fermentation of the food.—Sailer in *Journal of Nervous and Mental Diseases*.

UEBER DIE BEDEUTUNG DER ZEHENREFLEXE.—(The Significance of the Toe-Reflexes.) Martin Cohn (Neurologisches Centralblatt. No. 13, 1899. p. 580.) In line with the investigations of Babinski, Cohn examined the toe-jerks of a large number of healthy individuals and also those of persons affected with nervous disease. In adults without lesion of the nervous system, the plantar reflex elicited in 66 per cent. of the cases flexion, in 20 per cent.

extension of the toes, while in 10 per cent. there was no movement of the toes at all. In young children the toe reflex was mostly absent, while in infants, extension chiefly resulted, which was especially marked in the big toe. In paralysis due to apoplexy, in cerebral tumor, and in amyotrophic lateral sclerosis there was extension of the toes. In spastic paraplegia the reflexes varied. Meningitis gave an active arching reflex, while tabes and polyneuritis showed no toe-reflexes whatever. In a case of paralysis of one leg there was a reflex of extension of the toes on the affected side, whereas on the sound side the reflex was one of flexion. Cohn therefore concludes that a reflex of extension of the toes cannot be said to be of absolute pathognomonic significance.—Jelliffe in *Journal of Nervous and Mental Diseases.*

RELATION BETWEEN THE OCCURRENCE OF APPENDICITIS AND THE PRESENCE OF A NEURASTHENIC TENDENCY.—Schaumann (*Deutsche Medicinische Wochenschrift*) refers to this. He has frequently observed appendicitis in general members of neurotic families, and in a number of instances has seen appendicitis appear without any very apparent reason after severe neurasthenia had existed for some time. The fact that appendicitis is not infrequently combined with mucomembranous enterocolitis in his belief shows also some relation between appendicitis and neurosis; likewise neurasthenia is frequently combined with ptosis of one or more of the abdominal organs, and it may readily be believed that alteration in the position of the abdominal organs may lead to appendicitis and that the apex itself may be out of position and thus be more subject to inflammation; it is well known that in appendicitis the appendix is not infrequently found in peculiar positions. Also, certain authors have expressed their belief that chronic appendicitis is a very frequent result of movable right kidney. Schaumann does not insist that he has proved a direct relationship between neurosis and appendicitis, but he does believe that appendicitis may in some instances be the result of

general neurosis, usually indirectly.—*D. L. E., Philadelphia Medical Journal.*

HEREDITARY EPILEPSY OF FIFTY YEARS DURATION CURED BY AN ATTACK OF HEMIPLEGIA.—Brunet relates the following case in the *Archives de Neurol*, 1900, (LX), March, p. 224: Patient a female, born in 1812. Entered Charitè as insane in 1857; father was an epileptic in the same asylum. First convulsion occurred when seven years of age and after scarlatina. In the observation period she had convulsions every week or fortnight, followed by delirium. In 1857 she suffered an incomplete left hemiplegia. During the next three years her convulsions gradually diminished, and from 1860 to 1877 she had no attacks; in 1877 she died of apoplexy. In 1871-1872 she was very carefully watched by both day and night for the seizures. Her mental state improved at this time, dating from cessation of attacks.—*Journal of Nervous and Mental Disease.*

GASTROPTOSIS AND NEURASTHENIA.—Dr. R. G. Lockwood, of New York, after an analysis of forty-five cases, arrives (*Medical Record*, December 1, 1900) at the following conclusions: (First) In the majority of cases an adequate cause is not discoverable. (Second) Gastroptosis does not of itself, in an uncomplicated form, produce symptoms. (Third) The displacement of the stomach, however, is a predisposing cause of a variety of gastric neuroses, of sensation, motion and secretion. (Fourth) These neuroses are usually induced by some definite mental or physical strain. (Fifth) The displacement of the stomach is a strong exciting cause for muscular atony; that atony is the most common cause for the symptoms presented. (Sixth) A complicating atony is associated with a more or less profound neurasthenia, and direct relation exists between these two conditions. (Seventh) Gastric acidity is increased in direct proportion to the atony, unless counteracted by gastritis. (Eighth) Mild degrees of gastritis are apt to occur in stomachs that are displaced, but the symptoms are neither severe nor persistent. (Ninth) Gastritis occurring

in atonic and displaced stomachs, reduces the excessive acidity of these cases and seems to modify the severity of the symptoms. (Tenth) Atonic dilatation without mechanical hindrance is exceedingly rare. (Eleventh) Dilatation or, better, muscular inefficiency may occur in gastroptosis from duodenal kinking, from arterio-mesenteric constriction or from pyloric spasm. (Twelfth) Pyloric spasm is common in displaced atonic stomachs with hyperacidity, and may lead to a temporary dilatation. (Thirteenth) In a large number of cases inattention to the conditions of atony, of neuroses and of gastric secretions has led to an unsuitable, insufficient diet, which reacts both on general nutrition and on local conditions within the stomach. (Fourteenth) Surgical intervention is applicable only to cases in which dilatation exists.

LOST PERSONAL IDENTITY.—*The Boston Medical and Surgical Journal*, October 11, 1900, describes a case of this kind at the White Plains Hospital, Westchester county, New York, caused by a stroke of lightning which was examined by H. E. Schmidt; the entire left side was paralyzed after an electric storm. Knowledge of his identity was lost. On the night of the accident his muscles twitched. On the following day, if touched, he after some delay put his hand to that part of the body touched, if stroked he would stroke that part and if slapped, would slap himself. If roused and questioned sharply, he would reply, "I—I—I." After three months he improved in strength, the paralysis disappeared, and the muscular system was built up by calisthenics. He is not reported as having recovered his self identity.

NEUROTHERAPY.

UNTOWARD AND FATAL SUB-ARACHNOID ANESTHESIA.—*The Railway Surgeon* writes and translates as follows: In view of the great interest aroused by Bier and Tuffier by their use of cocaine for producing intra-spinal anesthesia,

the report of a case ending fatally is important. Goilav of Bucharest, Roumania, had this experience, which he narrates in a recent publication. (*Bull. et Mem. Soc. de Chirurg. de Bucarest*, 1900, p. 119.)

The author had two old men under observation suffering from senile obliterating arteries, evinced by loss of arterial pulsations, livid skin and violent itching, so that the patients got no rest either by day or night. There was no albuminuria. As neither hot baths, iodide of potash, elevation of the limbs nor injections of morphine had any effect on the pain, Goilav injected 1 per cent solution of cocaine between the fourth and fifth lumber vertebræ. Anesthesia ensued in twelve minutes and lasted twenty-four hours. As a result of the injection the patient had headache, nausea, vomiting, intense chills; the pulse and temperature were also elevated. These symptoms lasted for nearly three days, during which time caffeine and ether were repeatedly injected.

In the second case amputation of the leg was decided on, and 1½ centigrams of a 1 per cent solution of cocaine were injected again between the same vertebræ. Anesthesia followed in fifteen minutes and was perfect. The operation lasted for forty minutes and the patient was then put to bed, surrounded by hot water bottles, etc. In two hours intense chills came on, the temperature and pulse rose, and in spite of all remedial measures, the patient succumbed twenty hours after the operation.

The author remarks that while he has had but these two cases, his results, can not be said to be very brilliant, for in one the symptoms of intoxication showed danger was imminent and in the other death ensued. He believes that the intra-spinal injection of cocaine is contra indicated in cases of old obliterating arteritis, and that chloroform or ether are not relatively more dangerous than cocaine.

ELECTRICITY IN RESPIRATORY AND CARDIAC FAILURE.—(Dr. A. D. Rockwell, *New York Medical Record.*) Direct electrization calls into activity the physiological functions of the pneumogastric.

Percutaneous applications in therapeutic doses, especially with the faradic current, readily affect the respiration through the phrenic nerve.

In respiratory failure, whether due to the poison of opium, aconite, or in apparent death from drowning, electrization is a powerful antidote.

In heart failure, from chloroform narcosis, also, the faradic current is a legitimate method of resuscitation, by keeping up the respiration without depressing the heart.

THE SLEEP REMEDY IN DISEASE.—Sleep has two offices, both fulfilled in the long sleep of night, which it is our usual endeavor to secure for our patients: namely, that of favoring the slow changes of repair, and that of interrupting consciousness by uncoupling the chain of neurons, or by relaxing protoplasmic tension or tone. This relief of tension is, it would seem, the only office performed by the shorter spells of sleep, and therefore the two forms of sleep suggest two therapeutic objects. The night's sleep which comes without any drugs may need to be bettered, and in improving the quality of spontaneous sleep our help is often of value. It might also need to be prolonged.

The systematic prolongation of sleep for the cure of disease is one of our opportunities hitherto little used. In chorea, sleep entirely subdues the muscular agitation, and this observation has led to the attempt to arrest the disease by prolonging sleep for considerable periods. A complication arises in connection with alimentation which in this disease, as in most other nervous troubles, is of primary importance. Partly for this reason, and because more than rest may be needed for a cure, the results hitherto reported have not sufficiently recommended the method.

Prolonged narcosis has also been suggested in excessive wear and tear of the nervous system; and in various nervous affections, including the mental, its renewed trial, combined with suitable methods in feeding, might lead to encouraging results.

Best suited, perhaps, to our everyday needs is a systematic resort to the shorter sleep. Like the light installments

of food which restore the lost function of appetite and digestion, short sleep in the day may be essential to the cure of nocturnal insomnia. Our growing wealth in hypnotics warrants a hope that a suitable agent may yet be found which in that direction would minister to the health of the invalid, and might command the luxury of sleep at any opportune time for the convenience of the worker.

Body rest as a systematic therapeutic agent has long found its place in our treatment for patients whom weakness alone, in the absense of medical advice, would not have compelled to take to their bed. To that class belong the frail women in whom the debility of anæmia, of dyspepsia, and of over-fatigue develop symptoms often mistaken for hysteria. Rest in bed is their first need. In the treatment of chlorosis this is now recognized as the essential element for a rapid recovery. Its methodical employment forms a part of the Weir-Mitchell plan. But its most striking instance is that of the open-air rest cure for phthisis, which within quite recent years has largely replaced at foreign sanitaria the previous method by muscular exercise.—*Disease and its Treatment, by Wm. Evart, an address before the Harveian Society of London.*

TONGUE TRACTION FOR HICCOUGH.—Noir (Johns Hopkins Bulletin) after referring to obstinate galvanization of the phrenic nerve, faradism to the epigastrium, compression of phrenic tractile elevation of the hyoid and tongue traction prefers the latter for its simplicity and efficiency and record convincing confirmatory results.

THE LAXATIVE ANTIKAMNIA AND QUININE TABLET is a tonic-laxative, analgesic and antipyretic combination of merit containing:

Cascarin	gr. ⅛
Aloin	gr. 1-32
Ext. Belladonna	gr. 1-32
Podophyllin	gr. 1-32
Quin. Bisulph	gr. 1¾
Antikamnia	gr. 3

The value of this combination is apparent in many nervous conditions.

SOUKHANOFF.—(*Archiv. de Neurol.* April 1900, translated and abstracted for *Journal Mental Science* January) has observed marked swellings on the cortical dendrons in the following pathological conditions:

First—Poisoning by arsenic, alcohol, sulphonal, etc.

Second—Uræmia, cachexia strumipriva, etc.

Third—Ligation of the carotids and experimental embolism of the cerebral arteries (Monti's experiments.)

The drug which Soukhanoff found to produce this moniliform appearance most rapidly was trional (one and a half to two and a half days.)

CONTRA INDICATIONS OF IODIN AND SULPHO-CYANIDE.—Under the caption of "Iodism and Sulphocyanide in the Saliva" the *Edinburgh Medical Journal* abridges from Munk an interesting communication(*Munchen. Med. Wochnschr.*, 1900, No. 50) on this subject. While systematically testing saliva for sulphocyanides, he was struck by the fact that patients who showed a large amount in their saliva, almost without exception suffered from severe iodism if potassium iodide was administered to them; while patients who gave no sulphocyanide reaction bore iodides well. If the saliva gave a deep brownish read colour with a solution of ferric perchloride slightly acidulated with HCl., it is rich in sulphocyanides; but the contrary, if, on adding the reagent, the colour is no deeper than that got on adding it to an equal amount of water. Iodism may be due to the fact that sulphocyanide in solution is able to form free iodine from potassium iodide. It is to be noted that iodism effects only those mucous membranes which secrete sulphocyanide, while the intestinal and genito-urinary membranes never seem to be effected. Munk thinks that the presence of a strong reaction in the saliva might contra-indicate iodides being administered in cases where iodism might prove dangerous. He instances a case of paralysis of the abductors where iodism might have seriously impeded the breathing.

BROMIDES IN EPILEPSY—Dr. L. Pierce Clark con-

cludes (*Buffalo Medical Journal*, February, 1901) that: Bromides still hold an important place in therapy in epilepsy. Tonics must be given constantly during their administration. Bromide salts should be given gradually to find the epileptic's sedative level. Baths, high enemata, alimentary antiseptics, massage and electricity are absolutely essential to successful bromide medication. Bromine is a worthy successor to the bromides in many cases. Salt starvation or semi-salt starvation is a great adjuvant to the the bromide treatment.

UNTOWARD EFFECTS OF SODIUM CACODYLATE—According to Dr. W. Murrell (*Lancet*, January 26, 1901), French statements to the contrary notwithstanding, it produces all the untoward effects of arsenic in a marked and decided manner.

THE TREATMENT OF SYPHILIS.—A new and tolerable form of administering mercury, with report of sixty-five cases treated at Bellevue Hospital. By Winfield Ayers, M. D., New York City, instructor of genito-urinary surgery at the New York Post-Graduate Hospital, and attending genito-urinary surgeon at Bellevue Hospital, Out-door Patient's Department. (Abstracted from the author's original paper in the *Philadelphia Medical Journal*, November 10, 1900.

The writer states that when his attention was called to mercurol as an antiseptic of special value in the treatment of gonorrhœa, it occurred to him that it would be a first-class preparation for the treatment of syphilis. Some time was necessarily spent in determining the proper dosage. At first one-eighth of a grain was given three times daily, and this dose was gradually increased until it was found that three grains was the average quantity required to control the malady. The highest amount given was seven grains and the lowest amount that exerted a controlling influence upon the disease was one-half grain. In starting a patient on a course of mercurol the author advises beginning with half-grain or grain doses. Salivation

has been produced by two grains, and yet as much as six grains has been taken with no disagreeable symptoms.

The objections to the use of unguentum hydrargyri as a remedy in secondary syphilis are referred to; and while the popularity of mercuric protiodide is conceded, the irregularity of its action and its tendency to cause gastric and intestinal disturbances are not everlooked. In the writer's experience thirty-three per cent of his cases were not benefited by this drug.

Mercurol is a nucleid of mercury, and was discovered by Karl Schwickerath, of Bonn, Germany. Kopp, director of the Royal Polyclinic for genito-urinary diseases at the University of Munich, uses mercurol in smaller doses, which leads the writer to remark: "He will find, as I have done, that it is desirable to use a much larger dosage." Mercurol should not be given in solution with potassium iodide.

In all, sixty-five cases received mercurol at the Bellevue clinic, sixty of which had not had previous treatment. Of these, thirteen did not return after the first or second visit; fourteen did not remain long enough under treatment to give the preparation a fair trial; and thirteen may be described as new patients. Deducting these forty cases, there remain twenty-five cases that have been sufficiently long and regular in their attendance to supply data from which definite conclusions may be deducted. The detailed histories of these twenty-five cases are included in the paper. In summarizing the author remarks that while two months' treatment of syphilis is insufficient to determine absolutely the value of any remedy, the marked improvement shown by many of his cases makes it certain that mercurol is of great value. Its superiority to mercuric chloride in controlling the symptoms of syphilis is proved. Like all internal remedies it has very little effect upon the internal lesion; still it has hastened the healing slightly. None of the cases required treatment with potassium iodide to control secondary manifestations.

To recapitulate: First, Mercurol causes less disturbance of the gastro-intestinal tract than any other preparation of mercury used internally. Second, It controls skin eruptions

and pains much better than any other preparation, while it controls mucous eruptions as well as any other, and has equally as good an effect upon the chancre. Third, It is an advantage that it can be taken in pill form.

A FATAL DOSE OF MORPHINE AND ATROPINE PROVES INNOCUOUS.—Reported by Goodrich, in the *Philadelphia Medical Journal* of November. A middle-aged man attempted to end his life. He had suffered from financial and social reverses and insomnia. He had taken morphine and atropine for his troubles but not habitually. At the crisis of his depression he dissolved eighty-one tablets, each containing ¼ grain of morphine and $\frac{1}{150}$ grain of atropine sulphate, in a glass of water, and drank the whole quantity. He slept forty-eight hours and with a feeling of soreness and pain when attempting to move. The aggregate amount taken was twenty grains of morphine and nearly one-half grain of atropine. Recovery is attributed to the antagonistic properties of atropine and morphia but probably tardy absorption was also an important factor.

NEUROPHYSIOLOGY.

GAINS OF THE CENTURY IN NEUROLOGY.—Dr. Eugene G. Carpenter, Superintendent State Hospital for the Insane, Columbus, Ohio, gives the following interesting resumé in the *Columbus Medical Journal:* It was not until the beginning of the present century that real advancement in nervous anatomy began. About this time Reil pointed out the arrangement of the corona radiata and the relation of the brain fibres to the Island convolution which bears his name. In 1819 Burdach published "The Structure and Life of the Brain", which was a compendium of all the knowledge on the anatomy of the subject at that time.

Until 1842 the best methods known for investigation were those of dissection of hardened specimens and the

process of teasing out the fibres by the aid of forceps. It was in 1842 on the twenty-fifth of January, that Shilling first froze pieces of spinal cord and with a scalpel made cross sections of them. In his own words he says: "When I placed these under the microscope and with a power of fifteen diameters saw the beautiful transverse striations, I found a key which would reveal the wonderful structure of the spinal cord. Not more joyfully did Archimedes cry out 'Eureka!' than I at the first sight of these fibres."

It was his brilliant discovery which suggested to Schilling the making of serial sections with the common razor, and without further preparation examining them with the microscope. All that Schilling discovered was found by this simple means. This has been called the comparative method of serial cross sections. Since Schilling's time much has been added to this method of investigation to enhance its usefulness.

Hanover and Eckhardt made the important discovery of the use of chromic salts for hardening, which has not yet been displaced by any other process, although of late a five per cent solution of formalin has been extensively used for microscopical examinations.

The virtue of the most staining agents is dependent upon the specimens being saturated with chromic salt during the process of hardening. Upon this especially depends the use of haematoxylin as a stain, introduced by Weigert, of Frankfort, which yet holds a high place among the myriad of other stains now employed. By the Weigert Haematoxylin method the medullary sheaths of the nerve fibres are stained a deep blue-black color, which outlines the nerve fibre districts distinctly from the gray matter, and also the line is clearly drawn between normal and degenerated tissue, which it but palely stains. For this reason is the Weigert especially adapted to any degenerated changes which we may suspect to exist in the cerebro-spinal axis.

Pahl's modification of Weigert is another haematoxylin stain giving a bright blue color to the tissues, and besides being a good substitute for the Weigert is especially adapted for the staining of normal nerve tissue, which it

not only sharply defines, but brings into better relief those fibres penetrating the gray substance and ganglionic centers of the cord and brain. In this latter respect it is a method of inestimable value.

Marchi's method, based on a stain of osmic acid one part and Miller's fluid two parts, colors the medullary sheaths of degenerated regions a distinct black, leaving the contiguous regions a pale gray.

Two methods of special importance have sprung into prominence within the last decade. I refer to those of Golgi, of Turin, and Ramon y. Cajal, of Madrid. Both are based on a deposit of silver salts in the cells and on the processes, and for this reason specimens thus prepared give us the best photographic view of the relation of cells and fibres, and their intricate connections with each other.

The anatomists, Golgi and Ramon y. Cajal, each by his individual method pushing his researches in the van of all other investigators, have done more than all others toward unraveling the intricacies of the anatomy of the brain and cord, and, in fact, seem to promise us a solution of the entire subject.

The methyline blue method first published by Nissl in 1880, is the best for the individual study of ganglion cells. It is a delicate process requiring great pains and skill. With carefully prepared specimens under a lens of about 500 diameters, the anatomy of the cell, including the nucleus, nucleolus and the processes can be studied better than by any other method. Almost all we have learned of the ganglion cell has been through this method or modifications of it.

While the serial section method, aided by staining processes, has done much and promises much more, as yet it has not proved itself sufficient. By it the course of the nerve fibres can be traced with certainty only so long as they remain in the plane of the section. It fails us when the fibres become interrupted by ganglion cells, enter a plexus of fibres, or split into innumerable

fibres to be scattered in all directions,when the end sought for must be attained by some other means.

In 1852 Walter discovered that when a nerve center or nerve path was injured, degeneration took place along the line of its physiological function — ascending degeneration occurring in case of an injury to a motor path. The discovery of this principle has suggested to anatomists a number of methods of investigation.

First. The pathological anatomy method, where the material for histological examination contains an organic lesion, the result of an apoplexy, hemorrhage or injury whereby the conductivity of nerve energy has been interrupted. Through this method much that is known of the course of the fibres in the cord and brain has been obtained.

Second. The method by faulty development. This consists in the histological investigations of the nerve paths and centers of the new-born, in which some organ or member of the body has not developed in utero as followed by Edinger.

Third. The artificial production of faulty development in the animal, as originated by Scieffendecker and Singer, and pursued by Gudden in 1870.

Fourth. The embrylogical method represented by Flezig of Leipzig, and Edinger of Frankfort, is based on the fact that the fibres take on their medullary sheaths during different stages of development of animal life. What we know of the human embryology of this subject has been contributed chiefly by Kölliker and His.

Fifth. Some efforts have been made to establish *a method by the injection of different coloring agents into living animals* with the hope that special agents might be found which would elect special regions, and then on post-mortems the course and limitations of the various nerve tracts would be indicated by the different colors. Thus far this line of experiments has not met with any marked success.

Sixth. The physiological, or vivisection, method has added much valuable knowledge in experimental research, and as now pursued is destined to yield rich results.

Though the desired end has not as yet been attained by our present system of investigation, it may be safely prophesied that through these methods and the employment of the more perfect of the future the greatest problems of anatomists to-day will have been solved.

The great battle-ground at present is the ganglion cell and its connections. A thousand microscopic barrels all over the world are pointed toward it.

The methods of Nissl and Golchi have given us the dendrites, neuraxion, and axis-cylinder.

Waldeyer has elucidated some mooted questions by propounding the neuron theory, which seems to be an anatomical fixture. In our own country a debate is taking place over the retraction theory of the dendrites. On the one hand Dercum and Van Geisen favor the theory that the dendrites possess power of movement; that they extend, making contact with other dendrites, while Stewart Paton of Johns Hopkins and others refer to the experiments of Apathy in which it is found that in certain lower animals the axis-cylinders do not end in the ganglion cell, but pass on through, all making exit by some other dendrite to join another neighboring cell.

This is one of the questions to be settled in this country.

ARE ALL NERVE-CELLS IN DIRECT CONNECTION WITH BLOOD VESSELS?—[*Stehen alle Ganglienzellen mit den Blutgefassen in directer Verbindung?*] (*Neur. Cbl.*, January 1901.) Adamkiewicz. From theoretical considerations, the author of this paper came to the conclusion that such important structures as nerve-cells must be incapable of obtaining sufficient nutriment in the same simple way as other tissues, and that there must be a more intimate relationship with the blood-vessels in the case of nerve-cells than in other tissues.

He then describes what he claims to be the fine anatomy of the blood-vessels of the large intervertebral ganglia of the brachial plexus. The ordinary arterial capillaries give off finer capillaries—vasa serosa,—which are so fine as to transmit only the fluid constituents of the blood and none

of the corpuscules. Each of these vessels makes its way to a nerve-cell, spreads out and envelops the cell like a glove, then narrows down to its original size again, and finally opens into another arterial capillary. Whatever may have been the method by which these structures have been demonstrated in the intervertebral ganglia, it appears to have been inadequate to demonstrate them in the central nervous system.

In support of the view that the nerve-cells in the cortex cerebri are similarly situated with regard to the blood-stream, Adamkiewicz adduces two observations, one physiological and one anatomical. He points out that the exposed cortex is perfectly tolerant of a forcible stream of distilled water injected into the carotid will immediately produce nystagmus, extensor spasm all over the body, and disturbance of the pulse and respiration. His anatomical argument is that the vascular network in the cortex, as demonstrated by injection of carmine gelatine, is much closer in those parts of the cortex which are rich in ganglia than elsewhere.

The author concludes as follows:—All articles which enter the brain and spinal cord of man and of animals, at least of the higher animals, end on the further side of the capillaries in a very fine plasma vessels, which contain ganglion cells in diverticular expansions.—*W. H. B. Stoddart, Journal Mental Science January.*

HISTOLOGICAL EXAMINATION OF A SPINAL CORD AFFECTED BY SYRINGOMYELIA AND MULTIPLE HETEROTOPIA—[*Ricerca istologica d' un midollo spinalo affecto da siringomielia ed eterotopie multiple.*] (*Ann. di Nervol., fasc. i, ii,* 1899.) Lombardi, G. The patient, aged sixty, general paralysis. Fibrillary tremors of tongue and face mucles, and oscillatory movements of the fingers. Pupils myotic, unequal, fixed. The plantar and patellar reflexes normal, cremasteric and abdominal increased. The sensory phenomena not tested owing to mental condition. The hands and feet showed trophic changes. The nails atrophied; skin greyish white; phalanges wasted. Retroflexion

of distal phalanges and flexion of the second upon the first. Post-mortem examination showed hypostatic pneumonia and heart failure. Hyperostosis of the cranial bones; atrophy of the brain, increase of the subarachnoid and intra-ventricular fluid. Spinal cord showed thickening of the pia mater throughout its whole length and arterio-sclerosis. Occlusion of the central canal and diffuse sclerosis of posterion columns. In cervical and lumbar regions were syringomyelitic cavities of new formation. These contained vessels which markedly dilated perivascular spaces, and an amorphous substance which was to a certain extent disintegrated nervous matter. These were situated in the grey matter surrounding the central canal.

There was also displacement of the posterior cornua and of the anterior commissure, and asymmetry of the anterior columns. These anomalies of conformation support the embryonic origin of the syringomyelia.—*Abstracted epitome of J. R. Gilmour, Journal of Mental Science January.*

THE PSYCHOLOGY OF ALCOHOL—(*American Journ. Psych.*, Vov. xi, No. 3, April 1900.) Partridge, G. E. This is a study not merely of the effects of alcohol, whether as manifested in inebriety or when taken for experimental purposes, but of the intoxication impulse generally. The author believes there is a danger of regarding natural phenomena too readily as abnormal. He considers that the methods used by many who have been inspired by Lombroso illustrate this, and remarks that the conclusion of Nordau that all society is pathological is the logical result of an indiscriminate search for abnormalities. Thus we must beware of too hastily regarding the intoxication impulse as abnormal. It has played a part of the first importance both among uncivilised and civilised peoples. "Indeed, it is hard to imagine what the religious or social consciousness of primitive man would have been without them [intoxicants]." The first part of the paper is devoted to an account of the part played by this impulse in the religious and social life of early civilisation. This is follow-

ed by an analysis of the state of intoxication, accounts of experiments with intoxicating doses of alcohol, and observations on a series of inebriates. The author's experiments show that in intoxication, unless well advanced, the rapidity of simple mental processes is not decreased. The rapidity of tapping was most affected. Ability to control a reflex wink was greatly increased. There is increased activity of the associations, emotions and sensations which make up the self. The increase of self-confidence and the diminution of suspicion are important points in their social bearing. "The intimate relation of intoxication to the social impulse undoubtedly accounts—in part at least—for the wide-spread and persistent use of intoxicants. Doubtless is made possible wider social relations than could otherwise have been maintained.

Partridge does not find that the craving for drink is common among drunkards except when there is a decided neurotic taint. In fifty-eight out of the sixty-five cases he studied, there was no evidence of any conscious craving after the first few days. There was a much more marked craving for tobacco. Partridge is decidedly opposed to Archdall Reid's views concerning the existence of any specific craving for alcohol eliminated by selection, and regards these views as built up on a false analogy with zymotic diseases.

After summarizing the previous work of Kraepelin and others, Partridge finally gives the results of his own experiments on two subjects as regards the effect of alcohol in small doses on ability to do muscular and mental work. In one subject muscular work (as measured by the ergograph) was decidedly decreased; in the other subject there was no alteration in the work-curve—*i. e.* there was an increase in the first half hour, and then a progressive decrease. In the psycho-physical tests there was like effect. In addition there was a slight quickening, lasting nearly to end of second hour; in reading and writing a period of quickening followed by retardation. The depressing effect of the alcohol could never be traced on the following day. These results do not altogether confirm Kraepelin's.—*Havelock Ellis' epitome, Journal Mental Science.*

NEUROPATHOLOGY.

ON VARICOSITY OF THE CORTICAL DENDRONS.—[*Sur l' état variqueux des dendrites corticales.*] (*Arch. de Neur.*, April 1900.) Soukhanoff. Perhaps the most striking characteristic of the protoplasmic processes of the nerve-cell is the presence of the gemmules. A further characteristic, which is the least marked in a healthy adult brain, is the presence of varicosities of these processes. Now between these two elements there is a rough inverse relationship; the larger the number of varicosities on any given dendron, the smaller will be the number of gemmules, and *vice versa*. There are indeed some few cortical neurons, the dendrons of which have a markedly beaded aspect and are entirely devoid of gemmules, and it is probable that these neurons form quite a distinct class of elements in the nervous system.

The beaded appearance of the dendrons is most marked in the brains of new-born animals, in the brain of animals which have undergone degeneration in consequence of experimental interference, and in the brains of the insane.

Among new-born animals this varicose condition is seen at its best in those which at birth are unable to walk (mouse, kitten, jackdaw, etc.,) while it is ill-marked in those animals which are able to walk or even run instantly after birth (guinea-pig, chick etc.).

The assertion is, then, that marked varicosity of the dendrons is found in the brains of ill-developed new-born animals and in brains which have undergone degeneration. From these data the author concludes that varicose or moniliform atrophy is to be looked upon as an expression of the dissolution of the nervous system, the neuron having returned to a condition similar to that of one of its stages of evolution.

Varicosity of the dendrons is, as a rule, a recoverable condition. The lesion of the cell body is only to be regarded as grave when the varicose state involves a large number of the dendrons and approaches closely to the cell

body itself.—*Abstracted by W. H. B. Stoddart, Journal Mental Science, January.*

COARSE AUTOPSIES AT NEW HAMPSHIRE ASYLUM FOR THE INSANE.—Of ten autopsies performed at this institution there were two cases of sudden death from rupture of the wall of the left ventricle. In one case this was due to fatty degeneration following calcareous degeneration and occlusion of the left coronary artery. In the other case the coronary arteries were atheromatous and the wall of the ventricle in the neighborhood of the rupture was infiltrated with leucocytes and was the seat of numerous minute abscesses. The patient, a chronic maniac, who appeared to be in good physical health, suddenly dropped dead while making a violent demonstration toward another patient. Another case of interest was one of sarcoma of the small spindle cell variety involving the right frontal lobe of the brain. The tumor was firmly adherent to the dura mater and replaced the anterior two thirds of the frontal lobe, compressed the remainder, and indented and compressed the left frontal lobe.

Several specimens have been sent to Dr. W. L. Worcester, pathologist at Danvers Lunatic Hospital, Massachusetts, for microscopical examination.—*Reported by Frederick L. Hills.*

THE

ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, APRIL, 1901. No. 2.

Subscription $5.00 per Annum in Advance. $1.25 Single Copy.

CHAS. H. HUGHES, M. D., Editor. Editorial Rooms, 3857 Olive Street.

HENRY L. HUGHES, Manager and Publisher Business Office, 3857 Olive Street

Subscribers failing to receive the Journal by the 20th of the month of issue will please notify us promptly.

EDITORIAL.

[*All Unsigned Editorials are written by the Editor.*]

INSANE JUDGES AND INSANE JURORS.—The recent agitation anent the pardon of Mrs. Maybrick has called attention to the fact that Judge Stephens, who presided at the trial, was insane. Insane judges and insane jurors invariably lean against the axiom of the common law that everybody is innocent until proven guilty beyond a reasonable doubt, which also requires that every fact that can be reasonably explained on the theory of innocence must be so explained. This is the foundation of all law and all constitutional principles in the English-speaking countries. The Roman law, however, starts from an opposite theory, that of the right of the government, not the right of the individual freeman, whence it was that judicial torture, the disgrace of the Roman law, was never part of the English common law. Insane jurors and insane judges, however, always lean to the suspicional theories of primitive man and the Roman law and against the plea of innocence,

particularly when this involves the element of insanity. Two of the jurors who convicted Guiteau were subsequently proven insane and became inmates of an insane hospital. One of the jurors who convicted Pendergast showed himself to be a demonstrable paranoiac and later committed suicide under persecutory delusions. A New York Recorder (noted for the illegal severity of his sentences in cases where insanity was a plea) was demonstrably insane for several years before being retired from the bench. Many of the English "hanging judges" in addition to evidences of morbid mentality have showed evidences of sexual pervert habits. Insanity often brings to the surface the suspicional tendencies of primitive man to whom no death was natural but was due in one stage of culture to witchcraft or in a higher to murder by poison or otherwise. K.

ALLEGED INCREASE OF INSANITY IN THE BRITISH ISLES.—The claim has been repeatedly made that insanity is increasing in the British Isles from intrinsic causes disproportionately to the increase of population. In 1899 England, (*Journal of Mental Science*, January, 1901) whose population is estimated to increase 1.17 per cent per annum added only 1.45 per cent to its total insane population and while its first admissions are greater by 1.53 per cent its total admissions are less by 0.13 per cent. In Scotland the record is more favorable still, for while its estimated annual increase of population is 0.76 per cent its total lunatics are increased by only 0.17 per cent and there is a decrease in the total admissions and of first admissions equivalent to 2.33 per cent and 0.56 per cent respectively. In Ireland, with a population that is estimated to be diminishing at a rate of 0.28 per cent per annum, the record for 1900 shows an increase in the total number of the insane of 2.75 per cent in the total admissions of 2.16 per cent and in the first admissions of 6.07 per cent. The increase in Ireland and to no small degree the increase in Scotland and England is due to the rigidity with which the American emigration laws are enforced. A great increase has been noted in all the countries which formerly shipped

their insane population into the United States without hindrance. There is a growing tendency in consequence of these laws to leave the insane hitherto cared for at home to the care of the county authorities. This factor while not really increasing insanity in a given district has forced increased provision for it. As the urban population of all countries increasing, of necessity a seeming increase in insanity must occur, since in the first place an urban atmosphere is more irritating to the insane who have been permitted to be at large and in the second urban populations are less tolerant of annoyances by the insane. G.

WOMEN SEXUAL INVERT MARRIAGES.—The *American Journal of Insanity* reviewing Finck's Primitive Love and Love Stories, remarks:

"Were kissing all the joys in bed,
One woman would another wed."

Sexual invert marriages however, with women as has been shown lately by the case of Murray H. Hall the Tammany official who died from cancer of the breast, far are more frequent than is usually expected. Hall was an employment agent for thirty years, a Tammany Hall precinct captain, a professional bondsman and frequenter of saloons and disreputable resorts. "He" had dressed in male attire for thirty years, had married a "wife" (who died three years ago) and had adopted a daughter who never suspected "his" real sex. "He" was especially partial in literature to sentimental stories like those of Bertha M. Clay and Laura Jean Libby. "He" was not suspected as to sex by anyone since his manners were those of a coarse man. "He" had neither the voice nor the walk of a man. In the case reported by Dr. P. M. Wise nearly two decades ago (ALIENIST AND NEUROLOGIST 1883) two women formed a similiar relationship. The mother of one had a neurotic ancestry, but was brought up in refinement. She fell in love with a farmer and married him against her parents' wishes. The match proved unfortunate. He was prudent, did not give his wife the comforts of life to which she had been accus-

tomed. She finally became demonstrably insane, deserted her home and was found one morning behind a pile of wood clasping to her bosom a new-born babe. The child was taken care of by friends until the mother died, and grew up a beautiful girl, but when about seventeen years old exhibited an errabund tendency. She displayed a great liking for boyish games and attire, but a repugnance to suitors. She was persuaded into a marriage with a man to whom she became so repugnant that he deserted her, whereupon she sought refuge in a Pennsylvania almshouse, where she met the second case who came under Dr. Wise's immediate observation. This last woman had an insane ancestry on the maternal side. She preferred muscular sports and labor. She was averse to the attentions of young men and preferred the society of her own sex. She was forced into a marriage with a man to whom she bore a female child, but who deserted her, relations with her husband being distasteful. On being abandoned by her husband she went West, assumed a masculine attire, became a hunter, and spent several years among the Indians. On her return she published a very quaint description of her hunting life. Becoming reduced in circumstances she sought refuge in the almshouse with the first patient, who became strongly attached to her. The attachment proving mutual the two took up their abode in the woods as husband and wife. The second patient assumed the name of "Joe," and provided for the two by hunting and trapping. In 1876 the two returned, the wife introducing her "husband" to her uncle. She was kindly received, and her husband was hired to work about the place. One day "Joe" was found to be a woman in disguise, whereupon the uncle was so indignant that he caused "Joe's" arrest. She was imprisoned for four months, during which time the "wife" visited her and carried delicacies to her. At length the neighbors prevailed upon the uncle to have the young woman released. When she came out of prison she lived with her "wife" again. At that time the estate of the "wife's" mother was settled, and real estate valued at several thousand dollars became hers. This property she has not claimed, but still leads

her old curious life. Her "husband" died in the Willard Hospital for the Insane. She is about forty-six years old, while her "husband" was a few years her senior. The "husband" was admitted to the Willard Hospital for the Insane in consequence of a maniacal attack. After admission "Joe" tried to have sexual intercourse with her associate. "Joe" said that with her husband she had never had anything but repugnant sexual relations, but with her "wife" sexual satisfaction was complete. She had an enlarged clitoris, covered with a large relaxed prepuce. She had periodical attacks of sexual furor.

In a case reported by Kiernan (*Chicago Medical Record, 1892*) divorce was granted a husband of a sexual invert on the ground of inversion. The woman immediately formed a marital relationship with another woman. In three other cases reported by Kiernan elopements by married women with female inverts occurred. In a case reported by Montaigne one girl resolved to dress like a man and began as a weaver. She was looked upon as a well-conditioned young man whom every one liked. At Vitry she became betrothed to a woman, but a quarrel arising no marriage took place. Afterward she fell in love with a woman whom she married, and with whom she lived for four or five months to the wife's great contentment. Having been recognized by some one from Chaumont she was condemned to be hanged. She preferred this to living again as a girl and was hanged for using illicit inventions to supply the defects of her sex.

In 1721 Catharine Margaret Lincken married another woman after the fashion of the Countess V., in 1886 and was tried and executed for sodomy at the age of twenty-seven, (F. C. Muller, *Freidrieh's Blatter* 1891.) In 1731 (James Payn, *Sunny Stories and Shady Ones*) Mary East was engaged to a young man, for whom she entertained the strongest affections. Upon his being hanged for highway robbery, she determined to run no risk of any such disappointment from the opposite sex in future. A female friend having suffered similarly and being of like mind they agreed to pass for life as man and wife. The ques-

tion of which should be the husband was decided by lot in favor of Mary East who accordingly assumed the masculine habit. Under the name of James How she took a small public house at Epping for self and consort. Here and subsequently at other inns they lived together in good repute with their neighbors for eighteen years—during which neither experienced the least marital jealousy. They realized considerable money. The alleged James How served all the parish offices without discovery and was several times foreman of juries. While occupying an inn "his" secret was discovered by a woman who had known him in "his" youth. Henceforth she blackmailed the happy couple. First $25 then $50 then $500 were demanded as a price of silence. Even these bribes were found insufficient. At last, however the persecutor pushed matters too for. "James" brought the whole matter before a magistrate and, attired, awkwardly enough in the proper garments of her sex, witnessed against the offender, who was imprisoned for a considerable term. Exposure followed upon the trial. The White Horse had to be disposed of. The landlady retired from public life. After thirty-four years of "matrimony" "Mrs." How died. The disconsolate widower survived long afterwards but never again took to "himself" another spouse. Neither "husband" nor "wife" had ever been seen to dress a joint of meat, nor did they give entertainments to their friends. Although in excellent circumstances (having acquired between $15,000 and $20,000 neither manservant nor maid was kept, Mary East served customers and went on errands while the "wife" attended to household affairs. It is, as Havelock Ellis remarks (ALIENIST AND NEUROLOGIST 1895) noteworthy that women with special frequency fall in love with disguised persons of their own sex. This was the fact with many of the Amazons who have assumed male attire for other reasons than inversion. Miss Mary Ann Talbot (a natural daughter of Earl Talbot) assumed male attire to accompany her lover. Later she continued it as a means of subsistance. She engaged herself at one time as steward on

board the Ariel, Captain Field of the vessel entertained so high a regard for his steward that he took him to his own home in Rhode Island. Here Miss Field a niece of the Captain became passionately enamoured of his favorite and offered to marry "him" although it was not leap year; when "he" departed to join the ship she "went into convulsions" so that "he" had to be recalled to bring her to again. At last "he" was only permitted to depart under the solemn promise to come back after a single voyage and make Miss Talbot "his" wife. Dr. "James" Barry (the famous woman who served as surgeon in the British Navy for years without her sex being suspected) fought several duels with men because of rivalry in female affection. "He" was accused by women of great fickleness. Mrs. Welsh who enlisted in the British Army during the Eighteenth Century and served for several years had a similar experience. Her solicitude for the concealment of her sex led her to pretend to be a gay Lothario. She challenged and dangerously wounded a rival suitor for the hand of a Burgher's daughter. For this she was discharged from her regiment. Enlisting in another regiment paternity was sworn upon her by an untruthful damsel. She paid for the infant's maintenance without grudging since such a charge established her reputation as a man. Joan of Arc wore male attire for modesty. This was one of the heresies with which she was charged. She was placed in a dungeon on her capture, her jailor was ordered to insult her. In consequence she could not restrain herself from putting on male armor ensnaringly placed in her dungeon although she knew that she would be burned for so doing. Joan of Arc while not an invert was not entirely normal since she had never menstruated. Among the legal questions arising from these "marriages" is that of divorce by a real husband and that of alienation of the wife's affection by an invert. That inversion was a valid cause for divorce was decided in the Chicago and Indiana cases cited. In a recent case (Rodney vs. Cole) in Washington the husband alleged that under domination of the accused woman his wife went through and consummated a mock marriage some

time before the real marriage. In this case although suit was brought a compromise was affected. There is no doubt however but that a suit for damages for alienation of a wife's or husband's affection by a invert would hold. J.

FANATICISM OR INSANITY.—When some years ago an Irishman attempted to burn the fairy changeling (into whom he claimed his wife had been turned by typhoid fever) back into a human being, the courts held that this was no evidence of insanity but the result of imperfect training for which the accused was held responsible. Similar conditions seem to exist in the case of Mosher, lately accused of burning and torturing his step child by fire. He alleges that the homicide was due to the charge of the preacher of the Omish church that he was guilty of idolatry in loving the child so much. Neither the cruelty of the crime nor the motive alleged can be considered evidence of insanity *per se*. From an ecclesiastic standpoint burning is not as great a crime as shedding blood. The Inquisition and the church invariably turned its adjudged heretics over to the state with what was called a merciful prayer to spare the effusion of blood. This was a euphemism for burning at the stake. Burning at the stake is therefore to the ecclesiast a merciful method of punishment. These notions about the merciful nature of burning as compared to shedding blood are survivals of very primitive race notions. Among the Ossetes, a Circassian tribe when a child is born deformed or when the family has grown too large the father is permitted and even commanded by race custom to kill the child by pouring live coals down its throat. If he kills it in any other way he is held to be brutal and guilty of murder. Sacrifices by the insane of their infant children very frequently take the form of burnt offerings. In 1882 (*American Journal of Neurology and Psychiatry* Vol. I, P. 336) a resident of Providence, Rhode Island, under a delusion consequent upon a hallucination that God had commanded him so to do, built a pyre of wood in his home, saturated it with oil, bound his

infant son, and placed the child upon the pyre while he himself knelt down to offer up a prayer for blessing on the intended sacrifice. He was discovered and arrested before he could strike a match. In a similar case in Pennsylvania an insane man bound his daughter hand and foot and carried her to a lonely place in the forest, where hundreds of cords of wood were piled. An altar was quickly built and upon it he secured his child. In judging whether certain cruelties are the product of fanaticism or insanity the stage of culture of the accused must be taken into account—K.

THE PAN-AMERICAN EXPOSITION TO BE MAGNIFICENT AND UNEXCELLED IN BEAUTY.—It is promised for the Pan-American Exposition that it will surpass in beauty any previous exposition in the world's history. It is also expected that it will outrival its predecessors in many other ways, for at no time have such wondrous achievements in all arts, such perfection in the hundreds of trades, been attained.

We say this after examining the pictorial representation of its handsome buildings and ground and comparing them with the Chicago and the two Paris expositions.

SEX BY SUGGESTION.—Dr. Schenck, of Vienna, still persists in his theory dietary predetermination of sex, which is nothing more nor less than the insidious psychic suggestion. Stock breeders in this country have been seeking for many years to accomplish the predetermination of sex by feeding but have thus far failed. Here is his ante fecund boy baby dietary. After a preliminary albuminous dietary the following meals are prescribed:

First Breakfast—Cup of milk, with no sugar, and biscuits.

Second Breakfast—Lean ham, underdone, and a roll.

Dinner—A little soup, a quantity of roasted meat; no potatoes, peas, beans or lentils as vegetables; no pudding or fruit; some cheese, a little salted.

Supper—Fresh roast meat, cheese, a little bread and an apple; three glasses water daily with a little white wine.

A boy baby nourished *in utero* on so lean and limited

a bill of fare supplied to the mother's blood ought to come forth lean and hungry and no embryo Hercules. Girl babies according to Dr. Schenck's private scheme are given the best chance. We have promise in their mother's preconception dietary of less *puerility* at birth.

DR. GUSTAVUS BLECH has been appointed professor of casualty surgery in the Jenner Medical College. This is the first institution in the West to establish a chair for this branch of practical surgery and medicine.

MARK TWAIN'S BAD BREAK REGARDING OSTEOPATHY. — Because Clemens belongs to the Bonaparte family of wits is no reason why he should seriously advocate Osteopathy. Twain has missed the mark in his recent defense of the bone twisters. Like the Journal of the American Medical Association, the profession generally and the people will scarcely take the great American humorist seriously on this subject. Mark Twain is a capital iconoclast of popular idolic falacious fads. He must have had an attack of break bone fever and championed the Osteopaths in his delirium. He has been "taking life easily of late." Perhaps he thinks every one should be licensed to do so.

WATCH YOUR GOVERNORS DOCTOR.—The late Governor of Missouri officially favored Osteopathy and medical pathies in general and the present Governor of Washington has just vetoed a medical practice bill excluding the Osteopaths from practice, accompanying his veto message with an insulting reflection on the medical profession. That is what medical men get for ignoring politics. It is the duty of the profession to make itself felt in politics for self-preservation and for the welfare of the people.

CONTRACTS WITH GOD AND SANITY—A man recently arrested for non support of his wife and family pleaded that he had made a contract with God which debarred him from supporting his family. Doubt was rais-

ed as to his sanity but the symptoms described would be perfectly consistent with the sanity of an imperfectly educated fanatic. Contracts with God have often been made by sane people, thus Dr. Chatelain (*Annales Medico-Psych.* July 1866) reports the case of a notary who died at Neufchatel who everybody supposed to be perfectly sane, but among whose papers was found a document nothing less than a regular drawn up partnership contract between himself and God. Isaac Vigneaux believed that God was his partner in the liquor business. The Almighty was to give His blessing in lieu of capital, and His share of the profits was to be given to the poor. Isaac prospered, at all events; and every year regularly distributed 7,323 francs, 35 centimes to the poor of the city. Dr. Ball regards this man (*L'Encephale 1883*) as at least of doubtful mental condition, biased evidently by the agnostic spirit so prevalent at present. It is scarcely scientific to look upon the case from this standpoint and Dr. Chatelain who viewed it from the standpoint of religious people, regarded the man as sane. The truth about this case is, that the man was a devout individual who had the highest respect for business forms and made a covenant with the Diety in this manner. As Dr. Ray says (*Mental Pathology*) the procedure other than its name was a measure adopted by very religious people of unquestionable sanity. A partnership was the man's idea of the proper method of doing business. He did not imagine God was partner with him other than in the sense He was partner with every Christian who covenanted with him; but this idea of partnership was Vigneaux's way of expressing intimate relationship. It was, as Ray says, only an eccentricity in the true sense of that term; doing a very proper thing in an unusual manner. This man was, however a notary and it may be asked: Why did he expose his will to the possible chance of rejection by such a procedure if he were a sane man? Here curiously enough turns up a circumstance creditable to his acumen as a lawyer. In the fourth volume *Cause Célébrés* published in Paris in 1736 by Jean de Nully is to be found a similar case in which the court decided that such a con-

tract was no evidence of insanity. As Ray (''*Mental Pathology*'') says, it can scarcely be doubted that Vigneaux's professional studies included the Causes Celebres, which are well known to the French lawyer. Vigneaux did not entirely disinherit his heirs, and on his will being refused probate they disposed of the property as he directed. With the growth of a fanatic communistic set like that of ''Zion'' contracts with God will often be pleaded for non support of family and as such non support is best reached for the benefit of the family through civil procedures, examination into the sanity of the contractor will become more frequent. It should be remembered that no religious claim is by itself evidence of insanity. K—3.

SUICIDE DURING ADOLESCENCE.—A recent case in Chicago has raised the question of the liability of children through suicide. A boy of sixteen was found hanging dead. While some of the police advanced the hypothesis of suicide or accident others leaned to the theory of homicide on the ground that the boy was too young to commit suicide. The mobility of temperament which decreases the Celtic suicide rate decreases the child suicide rate. Suicide in children is less than one half the very low Celtic rate in the United States. In the fourteen months ending December 1891 sixty-two children committed suicide in Berlin (Ger.) The youngest had not reached the age of seven. The per centage there is higher for the same reason which will increase it here; increase of school over-pressure. The exciting cause of the suicide is usually a trivial one. One boy killed himself to get rid of ''so much dressing and undressing.'' No less than five attempts at suicide were made during 1887 by children under fourteen years of age, resident in a Philadelphia district less than a mile square. In three cases the attempts were successful. In three of the five cases the moral epidemic nature of suicide was shown in the fact that one suicide was an exciting cause of two suicides and one attempt. In all five cases the approach of puberty had produced its usual emotional disturbances. The immediate causes were, as in most child sui-

cides trivial. Hanging was the favorite method although one girl (who seems to have formed the melancholic delusion that she had hanged one playmate who committed suicide) took laudanum. She recovered from the poisoning and the melancholia.

With the increasing social tendency to expose children to financial and other mental stress at the critical period antecedent to puberty, suicide, insanity and criminality among children must in the nature of things increase. The hold on life, as Strahan remarks, lessens with advancing age and self-destruction increases proportionately as age advances. During the first five years of life it is extremely rare, though not unknown. During the second five years it is less rare and in recent years suicide during this period has been increasing in frequency. From youth it increases steadily. As to the causes influencing suicides in children and youth it must be remembered that the influence of puberty cannot be excluded from and mental or moral change. There is very little doubt but that child labor influences the increase of child suicide. Sanitarians should pay a little more attention to the labor demanded from children. It is a disgrace to American civilization that the almighty dollar Moloch should require so many infantile sacrifices. G—2.

GOUTY INSANITY AND THE AMERICAN REVOLUTION.—Lord Rosebery in a recent address before the University of Edinburgh claimed that William Pitt's acceptance of an Earldom broke down his intellect and lead to the severance of the ties between Great Britain and her American colonies now constituting the United States. The suggestion of Lord Rosebery that the English House of Lords is a potent cause of insanity has rather a humorous aspect coming as it does from one of its most noted members. Unfortunately for Democratic beliefs the instance cited does not bear out the conclusion. As Kiernan pointed out in a paper read before the Chicago Medical Society nearly two decades ago, the crisis between Great Britain and our colonies was created by gout (ALIENIST AND NEU-

ROLOGIST 1883) and not by the evil influence of the House of Lords. The mental phenomena manifested under the influence of gout by one of the greatest English statesmen, William Pitt, soon after the repeal of the Stamp Act, had no little influence on the future of the race. The elder William Pitt, the idol of the American colonists, whom he had protected against the French and Indians and whose views as to taxation he had adopted and supported, because insane from gout at a very critical period of his own career, and of the relations of Great Britain to America. The Stamp Act had been repealed, Pitt's policy had triumphed and his policy was the correctness of the view adopted by the Americans anent the unconstitutionality of the Stamp Act and taxation without representation. He formed a ministry and then became insane, in a manner described by Macaulay (Essays: Earl of Chathar's) in his inimitable pellucid style. Pitt's insanity led him to fall into the snares of that cunning paranoiac, George III. Pitt at this time was as eloquent as ever, and no one suspected him of mental disorder, but his habits became more and more eccentric. A horror of loud sounds grew upon him. Though the most affectionate of fathers, he could not bear to hear the voices of his children and laid out great sums buying up houses adjacent to his own at Hayes, merely that he might have no neighbors to disturb him with their noise. He then sold Hayes and took a villa at Hampstead where he again began to purchase houses right and left. At Burton Pynsent he ordered a large extent of ground to be planted with cedars which had to be collected all over England and were, by his orders, planted by torchlight. No man was notoriously so abstemious as Pitt, yet at this time, the profusion of his kitchen was the marvel of epicures. Dinners were always dressing, as he had a capricious and fanciful appetite and when he felt inclined to eat, everything must be on the table. In the true spirit of an alienist, Macaulay remarks, setting an example which could be followed to advantage, by both lawyers and physicians, that other circumstances could be detailed, which, separately and singly, were of little moment, but, combined

and contrasted with surrounding circumstances, and with Pitt's previous and after character, justified a diagnosis of insanity. While in this fit of planting, Pitt was summoned to form an administration, and his notes to his colleagues *in posse* were so arrogant that even the despot, Louis XIV, would have deemed them unfit to use in correspondence with a French nobleman.

The ministry then formed by Pitt displayed anything but sagacity. In it irreconcilably bitter personal and party enemies were so mingled that they could not but conflict with each other. Pitt with an equal abandonment of his sagacity for the sake of rest from House of Commons turmoil and in contrast with the course of the old English families from which he sprang, accepted an earldom, thus ruining for the time being his popularity in England and his influence on the continent. Up to the time of the appearance of the phenomena already detailed, Pitt had been tormented with hereditary gout. The disease had been suppressed by remedies whereupon the psychical symptoms described suddenly appeared. He became melancholy, irritable and fanciful. The state of public affairs was embarrassing; his colleagues were in constant dispute; his opponents were clamoring against him, yet he, the clear-headed statesman; the man of whom Frederick the Great said, "England has been long in labor, but she has brought forth a man," whined that he could be saved from all these misfortunes only by repurchasing the house he had so capriciously and hastily sold. This fancy accomplished, he was somewhat easier, but when business was mentioned, Pitt, the energetic ally of Frederick the Great, the dictator of Europe, trembled and burst into tears. He passed twenty-one months in gloomy seclusion, while his colleagues carried out the measures proposed by that morally imbecile paranoiac, George III, under, as it were, Pitt's sanction but in total contradiction to his policy and wishes. During this time American colonies were taxed, in defiance of Pitt's stirring denunciation of even the theory of such practices, but even this could not call him from his morbid seclusion. He at length resigned his office. Nine months thereafter

the gout reappeared and with it Pitt's intellect. He was once more buoyant, hopeful and self-confident, but his attack of insanity had, as Macaulay says, enabled the government formed by him, to violate every principle of foreign, domestic and colonial policy dear to his heart. It is by no means improbable that, as Lord Rosebery recognized, but for this attack of insanity the colonial relations of the United States to Great Britain might not have been severed. J.—2

"REDEMPTIONERS" AND DEGENERACY.—From the early settlement of what are now in the United States until just before the opening of the controversy which led to the Declaration of Independence, people were sold in the United States as convicts, "kids" and "redemptioners." These were persons who either voluntarily, through kidnaping or through sale as a political or other convict became bond servants of a planter or farmer for a term of years. After the various English revolutionary attempts large numbers were sold into servitude by court officials. After the defeat of Monmouth, William Penn purchased men, women and children to stock his colony. A large number however of the persons sold were "redemptioners" and criminals whether social or anti-social. Many escaped from servitude to form communities of "poor whites" in the South. Perhaps the largest of these communities are to be found in the mountains of Tennessee, Kentucky, West Virginia and North Carolina. Dr. C. B. Burr of Flint, Mich., has recently studied ("*Doctors' Magazine* October 1900") the mountaineers of North Carolina from the standpoint of sociologic psychiatry. Among them cousins, and double cousins marry and natural defects are directly transmitted and intensified. The men only are exceptionally of commanding stature, of good physique. In one locality two-thirds of the children were imbecible. In one family four of the children and grand-children had club foot; one, infantile paraplegia, one spinal curvature and one epilepsy. Mere girls and boys marry. "The Bible says better marry than burn, and that is the reason of

it" said a mountaineer. "Resentment for the other sex" occurs early and one night's courting has sufficed for engagement especially as "bundling" (Knickerbocker) is a custom.

Menstruation is frequently established at twelve. Girls of thirteen and fourteen often marry. The climacteric supervenes not infrequently between thirty-five or forty. The women do most of the farm work which in the North is as a rule allotted to the male. The women are extremely fertile but there are few old people. One woman, upwards of seventy, living in the end of a double cabin, there cared for her grayheaded son, who was an insane imbecile. Insanity is frequent and while the mountaineers are not averse to placing their relatives in institutions for the insane, (Morganton N. C., is the most convenient), still many are cared for at home and many roam the country and are more or less a nuisance. There will doubtless be an enormous "increase" of insanity when the next hospital for the insane is built, owing to the gathering in of these last.

There is much sexual laxity. Lovers are apt to bear the relation of man and wife. In accordance with the "bundling" custom, children are born out of wedlock so frequently that this excites no surprise and little comment. In one family Dr. Burr found under the same roof six illegitimate children. The mistress of the house who had been married twenty years, had two unmarried daughters each of whom had given birth to two children. A third daughter had had several illegitimate children previous to her marriage to a respectable farmer and mica dealer. There is little social ostracism of girls who have yielded to their men friends. A child born out of wedlock is granted equal consideration with one whose parents have married.

Belief in witchcraft and sorcery is as, among the West Virginia mountaineers universally prevalent. In West Virginia three years ago a serious witchcraft epidemic broke out which was only quelled by the interference of the Governor.

Liquor drinking is very common among the men.

Almost without exception they chew tobacco. Women chew tobacco, smoke and "dip" snuff. Girls, six to eight years old, are occasionally seen with "snuff sticks" in their mouth. As a rule they begin to "dip" as soon as they are old enough to get from the woods a tooth-brush of birch or dog-wood. This stick is bitten and frayed at the ends, saturated with saliva, rolled in snuff and inserted into the mouth.

The sociologic influence of the bond servant class among the New England states has yet to be precisely determined. While the comparatively cultured individualism of the puritan communities was somewhat hostile to the degeneracy factor from defectives bought as servants, still the dominant prying theocracy stimulated mean hypocrisies which tended to develop the primary "ego" at the expense of the secondary. As prison criminals are particularly good religious hypocrites such persons would be peculiarly apt to flourish in the strenuous religious atmosphere of the puritan states. This is probably the reason why (in Connecticut in particular) commercial honesty was at the low grade shown in the sale of "cork hams," "wooden nutmegs," and "shoe-peg oats." It is also the reason why Connecticut was famed for plutocratic legislation which the English Commonwealth had repudiated. For more than fifty years after the end of the American Revolution there was in Connecticut an underground prison which surpassed in horrors the Fleet under Bamborough. This den (known as the Newgate prison) was in a worked-out copper mine. The only entrance was by a ladder down a shaft which led to the caverns under ground. There in little pens of wood, from thirty to one hundred culprits were immured, their feet made fast to iron bars, and their necks chained to beams in the roof. The darkness was intense; the caves reeked with filth; vermin abounded; water trickled from the roof and oozed from the sides of the caverns; huge masses of earth were perpetually falling off. In the dampness and the filth the clothing of the prisoners (McMasters' History of the people of the United States, Vol. 1, Page 98) grew mouldy and rotted away, and their limbs be-

came stiff with rheumatism. In such pits all classes of offenders of both sexes were indiscriminately thrust. They became seminaries of every vice and epidemic centers of venereal disease. Prostitutes plied their calling openly in the presence of men and women of decent station, guilty of no crime but inability to pay debts. Bond-servants consisted as already stated, of three classes; convicts; (political, social and anti-social criminals), "free willers" or "redemptioners" and "kids" (as children were then called) who had been stolen, sent to the new world and sold for, at least, a ten year's term of service. One great potential element of defect arising from these classes was the bond-women brought over who afterwards became the wives and mothers of the community. To Virginia in particular companies sent out wives as a speculation. Sandys of the London Emigration Society, the Earl of Southampton, (Alice Morse Earle: "Colonial Dames and the Good Wives") and friend and patron of Shakespeare planned "as an anchor in the new land, to send out a cargo of wives for these planters that the plantation might grow in generations and not be pieced out from without." In 1720 the "Jonathan" and the "London Merchant," brought ninety maids to Virginia at what proved to be a most successful venture. These women were carefully chosen and warranted to be "young, handsome, honestly educated maids, of honest life and carriage." The husband paid to the Emigration Company one hundred and twenty pounds of leaf tobacco, (about $80) as passage money for the wives. Many of the women "redemptioners" married into the families of their employers. Daniel Defoe's niece ran away from a marriage entanglement in England and sold herself on board ship as a "redemptioner" when but eighteen years old. She was bought by Mr. Job of Cecil County, Maryland, and soon married her employer's son. According to Defoe so many good maid-servants were sold to America that there was a lack for domestic service in England. In Louisiana and the Canadas the class of women sent as wives was as a rule of the type depicted by Abbe Prevöt in "Manon Lescaut." In 1721 eighty young girls sent to

Louisiana as wives were taken from the French House of Correction. Considering the elements of degeneracy thus imported into the United States and the conditions therefrom resulting as late as the third decade of the last century, present conditions furnish a decidedly optimistic outlook for the Twentieth Century. K.—4.

WIDEN THE AIRGATES OF THE CITY.—The present and prospective growth of this rapidly developing Metropolis, with a World's Fair begun and a fifteen million dollar expenditure provided for in honor of the Louisiana purchase Centennial, presents new sanitary problems.

The narrow streets laid out, close communion of its people for defense of its people when St. Louis was a little Spanish fortified town, from time to time attacked by Indians and perpetuated from the time when the French held sway and later when the Americans took possession under the deed from Napoleon I, to Jefferson's administration, should be changed to broader avenues, as the last Louis Napoleon under the wise and broad engineering skill of Baron Hausman widened the little overcrowded, unhealthy thoroughfares of Paris into those magnificent health-giving and and pleaure and comfort promoting Boulevards which are the glory of the French capitol and excite the admiration, if not the envy, of the world. The Boulevards of Paris are veritable parks and they cover acres where qualor, poverty and the diseases of congested populations once existed.

What is to hinder St. Louis from similarly widening her down town streets? If St. Louis is to go on building gigantic sky scrapers for the modern business cliff dwellers, to meet the demands of her rapidly increasing business, she should look the sanitary situation squarely in the face and provide by widening her thoroughfares for more sunlight and air around her great buildings. The millions who walk her down town streets now and the millions more of the world's people who will come within her borders in 1903 to do business in her places of trade will need more air space. There will be breathing room enough always in her magnificent parks and in her West End Boulevards and

Avenues, but the majority of her immense population will not there abide or do business on these newer air spaces and pleasure grounds. For health's sake, for comfort's sake, for business' sake and for the future glory of this great central metropolis of the country widen the streets. Market Street when the World's Fair crowds come will be too narrow from Union Station down town and west to Grand Avenue and likewise 18th and 19th Streets will prove too narrow to contain them.

IT IS PAINFUL TO THE PATRIOT STUDENT of American political history to note the dangerous degeneration in political methods and the apathy among the best people of the Republic toward the progress of the vicious methods which now prevail and pollute the pool and fountain source of this great country's political safety. Contrast, for example, the course and career of the Tammany Society to-day with the lofty patriotism and noble purpose of its early days, and compare the polluting party politics now ruling the policies of the other great cities and many of the state governments of our day with the broad and generous concern for the welfare of all the people, coupled with the elevated and manly statesmanship displayed by the founders of the original thirteen states of this Republic.

Tammany is like an old man degenerate, who in youth was upright and true, now gone into the decline of life, with the higher aims and inhibitions of his early career gone from him—dissolute, degenerate and damned.

THE TECHNICAL COMPOSITION of the coroner's office and coroner's jury should be representative of the interests involved. It should include a medical man, always as coroner, and medical men as his assistants, and the composition of the coroner's jury should represent at least one good chemist, and good attorney, one undertaker accustomed to viewing ordinary dead bodies and several skilled physicians, including a surgeon, a neurologist, a practitioner of inner medicine and a specially skilled anatomist.

Such a jury should, of course, be better compensated ıan the present coroner's juries are. With such a jury urders would be more often detected and more murderers ould be brought to justice.

DR. LEWELLYS F. BARKER.—The *Journal of Comırative Neurology* will have the editorial collaboration of r. Lewellys F. Barker, professor of anatomy in the Uniersity of Chicago and Rush Medical College and author the best books extant on the nervous system. The deırtment of neurology of which Dr. Barker will have special editorial supervision is the Neurone Systems and onduction Paths, a department which Dr. Barker is preminently well qualified to conduct. Much of our exact nowledge of anatomical fact has in large measure been cquired through Dr. Barker's researches in this field, in hich he stands so deservedly high.

JUSTICE BROWN ON TOBACCO.—In his opinion, says ıe *Chicago Clinic*, in the "Tennessee cigarette case," ustice Brown champions the use of tobacco, and speaks ith some enthusiasm of its good properties. He refuses indorse the opinion of the Supreme Court of Tennessee, that cigarettes are inherently bad, and bad only."

While cigarettes are not worse ordinarily than the bacco they contain and not worse than the average cigar, bacco is a vital depressent, as ample experiment on inerior animals and personal human experience has indubitably roven.

The egotism of courts in regard to questions of medal opinion has not yet fallen under the restraint of reason nd experience down in Tennessee.

From the times of Hale, Erskine and Tracy eminent ırists have delighted in interpreting disease and expounding ıeir views of subjects bearing medical aspects for the nlightenment of medical men and all mankind.

And notwithstanding the steady, resistless advance of cientific light into the shaded realms of judicial decision nd the final reluctant yielding and recognition by the

judiciary of its historic medical error, the paranoiac egoistic delusion of the bench every now and then reappears in absurd judicial judgment on matters medical which the higher court of science must inevitably reverse.

It required a century of judicial murders and of strenuous effort on the part of the medical profession to clear the judicial mind of the shadowy misconception that only delusion constituted insanity.

It will require a good many decades yet to convince the courts that human beings may be irreparably damaged by concussional railroad injury, mental and physical, without a perceptible break in the anatomy of the cranium or spinal vertebrae, but the serious condition of intangible injury that sometimes results from these accidents will some day be so plainly proven that even railway surgeons, railway attorneys and the wearers of the judicial ermine will discern them.

THE APHORISMS OF HIPPOCRATES are good reading and some of them not mal apropos in practice at the present time, more than two thousand years since the death of the Father of Medicine, and the Liquid Peptonoid people have conferred a benefit on the profession in reproducing them translated into the English language and sending them out in the form of a neat pocket brochure with the medallion imprint of the ancient physician on the outside front cover. This is commendable enterprise in advertising.

DEATH OF T. B. WHEELER.—We regret to have to announce the death on January 10, of T. B. Wheeler, M. D., whose ability and character have been the principal agents in giving to Wheeler's "Tissue Phosphates" their well merited high repute. It is announced that the business will be carried on without change and all contracts, checks, etc., are to be made out as formerly to T. B. Wheeler and all communications so addressed.

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next annual meeting of the American Medico-Psycho-

logical Association will be held in Hotel Pfister, Milwaukee, Wis., June 11, 12, 13 and 14, 1901. The date has been placed a little later than usual that this deservedly popular convention city may be visited at a pleasant season. Warren P. Lombard, professor of physiology in the University of Michigan, will deliver the annual address. Subject, "Reinforcement and Inhibition of Nervous processes."

JUDGE WILTBANK should be made to feel the withering scorn of that humanity he has violated in fining a tardy Pittsburg doctor, detained by a dying patient, for contempt of court. His cruel dictum, that "it were better that the patient should die than that the court should be in contempt," is yet more contemptible than the fine, which he later remitted. This vicious ruling will find place among the brutal judicial annals with the heartless utterances of the crazy Judge Jefferies of the English Bench.

HOW WE ARE PROGRESSING.—An advanced ophthalmologist has found eneuresis due to eye strain. One of our neuropaths who had been an inmate of Kirkebride's and of Utica was once told by a nose and throat specialist that the subsequent nasal catarrh from which she suffered was the cause of her insanity, and now supra-renal capsule is pronounced to be a remedy for snoring. Modern medicine marches on to glory.

SENSIBILITY AND PSYCHIC FUNCTIONS OF PHAGOCYTES.—A. K. Federolff, discusses "lowered sensibility in the causation of infectious diseases," in *Vratch*, St. Petersburg, for December 29 and January 5, (*vide Journal A. M. A.*, February 23), believes that the reason why the chemical products of the vital activity of pathogenic microbes in some cases attract and in others repel the white corpuscles (varying chemotaxes) is due to the physiological condition of the phagocytes rather than to any special properties of the bacterial products, and he attributes sensibility and psychic functions to the phagocytes, displayed in their purposeful movements, in their selections of

food materials and in their aggressive seizure of the casual agents of the infection. If they are benumbed or diseased, then the products elaborated by the bacteria or resulting from their dissolution, fail to incite the phagocytes to their normal aggressive activity. Tests of the effect of narcotic substances on the white corpuscles have demonstrated that their tactile and chemical sensibility are diminished by an anesthetic, exactly as the general sensibility is depressed and the reflexes are abolished by anesthesia. When, from any cause, the products of metabolism accumulate in the blood and lymph spaces, they probably exert a narcotizing influence on the cells and especially on the sensitive phagocytes. As the latter become benumbed and remain passive under this action, their physiologic faculty of producing the alexins—which some claim are bactericidal substances poured out into the blood plasma—is also reduced in proportion. The bacterial products may irritate the blood-producing organs, and so induce leucocytosis, but this is no criterion of the power of the organism to resist infection. The resistance depends on the physiologic condition of the leucocytes rather than on their numbers. In short, Federolff believes that depression from any cause may lead to accumulation of the products of metabolism. These in turn are liable to narcotize the cells—especially the phagocytes—check their functioning, assimilating, odidations, etc. This allows the germs of infection to develop and elaborate their toxins, unhindered, entailing in consequence some infectious disease.

HEREDITY.—The *Philadelphia Medical Journal* notes the fact that Thomas Oliver (*Lancet*, November, 10, 1900, p. 1335) pointed out that the Derby has never been won by a horse that was not a thoroughbred, and the same statement is practically true of the other great English races, the St. Leger and the Oaks. It appears, further, that the Derby has never been won by a gelding. Mares, also, have won races far less frequently than stallions. With the object of maintaining the high standard of the English racehorse, close breeding in and in is practiced,

and as a result of this practice, it is thought by many, the animal is degenerating. To overcome such a result infusion of fresh blood becomes necessary from time to time.

ARCHIE, the youngest son of Dr. Wm. W. Ireland, well known to the readers of the ALIENIST AND NEUROLOGIST, who is a civil engineer, has been called to go to South Africa, with the second company of the Royal Scots Volunteers. He was a first lieutenant in the Volunteers, and had put down his name as willing to go for foreign service at the beginning of the war. The other son of Dr. Ireland is in medical charge of the penal settlement at Masseruni, British Guiana.

ENTRANCE AND EXIT MEDICAL GRADUATE QUALIFICATIONS.—The entrance examination of medical colleges is not so important to the aspiring junior medico as the exit examination. It is not so much what he knows when he begins as when he finishes that will effect the patient. If he makes a good finish he will be less likely to finish his patient. He should get in at the finish with a good deal of knowledge. His period of preparatory study should never be less than four years.

An ambitious, studious and diligent medical student can make up deficiencies in the interim of his college medical study, but it will be too late for the storing of medical facts and the training of medical judgment if he waits till the undertaker is on his track and the sexton's predestined victim is in his hands.

Great medical men have been fashioned out of material not previously moulded in literary colleges, but never out of men who did not work hard and acquire well the essentials of medical knowledge and every other essential of a a well developed observation and judgment after they began study.

The royal road to medical success is to be flush in medical knowledge and judgment—a well stored and logical mind trained to make the best use of medical knowledge and observation.

HYPNOTIZING AGAINST HYPNOTISM.—Liegeois in a recent article proposes to prevent hypnotism by hypnotizing the person likely to be exposed and suggesting that the subject cannot be hypnotized. It is perfectly possible to effect this by suggestion without hypnotism. In 1890 a professional hypnotist was to deliver a lecture before a club of very susceptible subjects of the newspaper persuasion. A physician suggested to the president and secretary of the club that no person healthy mentally and physically could be hypnotized. This suggestion spread round the club, and in consequence the hypnotist failed completely in his attempts. Ever since the time of Father Kirchner it has been known that, as Westphal later more completely demonstrated, animals cannot be frequently hypnotized without dangerous results. Dr. Charles Howard reported some years ago (ALIENIST AND NEUROLOGIST, 1895) a case in which he had caused an honest man to commit theft. The man was accused after he had become restored to his normal condition, protested his innocence most honestly, but the stolen property was found on him, whereupon the man was so shocked that he went into a cataleptic condition, in which he remained for some days. Dr. Howard naively added that the man's brain was, he believed, permanently injured, and that as a physician he had employed greater precautions in his experiments since that time. Dr. E. C. Spitzka testified in the Guiteau trial that, while no person not predisposed, could be made insane by hypnotism, no person could be frequently hypnotized without being injured. The cerebral vasomotor disturbance concomitant on hypnotism must inevitably produce local secondary changes. As the ALIENIST AND NEUROLOGIST has frequently remarked, undue tendency to hypnotic experiment deserves severe rebuke.

KIDNAPING OF CHILDREN BY THE INSANE.—The present general alarm about kidnaping seems to revive memories of the time when the comprachicos or child buyers were the terror of Europe. Although the child buyers strictly purchased children they were not over and

above rigid as to the persons from whom they purchased them. They usually purchased children for manufacture into deformities, dwarfs, and other curiosities not excluding double monsters. Other children were turned into cripples to be used by professional beggars in their occupation. This industry still obtains in France and Italy although it was crushed out in England early in the present century. The last to indulge in it in England was a "Dr." Harper, who for a long time practiced unmolested, and turned out various monstrosities, at a fixed price to showmen. Victor Hugo made in "By Order of the King" a very thrilling use of a monstrosity manufactured by the comprachicos. While some of the comprachicos were paranoiacs still the majority were sane. In Victor Hugo's picture of the comprachicos occurs one figure which seems to belong to the paranoiac category. The motives of the insane for kidnaping vary from the ordinary motives which govern the same to delusional motives and finally to an expression of the collectionism tendency which makes so many of the deteriorated insane gather up anything that strikes their fancy irrespective of property rights or of value. It was from such motive that Maggie Keppel gathered up a young child playing some distance away from its home and took it on an irregular, purposeless wandering through New York and Brooklyn. As Dr. L. C. Gray has pointed out this class of people cannot give any clear account of the kidnaping (*American Journal of Neurology and Psychiatry*, Vol. II, page 19, 1883) and are when questioned very liable to suggestion by leading questions. Sometimes they are prompted by an imbecile pity to take care of a child in an indefinite fashion whom they find crying. In this case they do not endeavor to ascertain the child's residence or parents but simply wander off with it wholly unconscious of the pain they may be creating by carrying it off.

SKULL DEFORMATION IN INFANCY AND INSANITY.—It has been claimed by Dr. R. Peterson and others that the practice of artificial distortion of the cranium exists only among the lower races of mankind. This is in decided error,

since as Barnard Davis showed many years ago (Anthropology, 1856) the practice is far more wide-spread than is usually expected. It was common all over Europe and was practiced by the Turanians, by the Slavs, by the Scandinavians, Anglo-Saxons and Celts. Less than half a century ago Foville proved that the nurses in Normandy were still giving children's heads a sugar-loaf shape by bandages and a tight cap. In Britanny they preferred to press it round. Morton and Catlin state that while the artificial distortions of the cranium may play a part in developing synostosis, these have no effect upon the intellectual functions, and that there are no mental data as to the effect of artificial malformation of the skull during child development. As Talbot remarks, (Degeneracy, Its Causes, Signs and Results), this opinion has no analytic basis. Foville described many years ago cases whose heads were of a very peculiar form;more or less perfectly approaching the pyramidal; the face might represent the base, and the occiput the apex. Their foreheads were particularly flat and narrow. In the district where these heads are found more children die at an early age than in any other; the diseases being principally convulsions and other maladies of the brain. More insane come from this than from any other quarter of France in proportion to the population; and finally more cases of idiocy, epilepsy, and the like, than elsewhere. The peculiar shape of the head pervades the people of that whole region who all (*American Journal of Insanity*, January, 1848) participate in this deformity in a greater or less degree, without exception. So universal is it indeed that some painters and sculptors regarding it as the natural head of man, have drawn from this source their beau ideal of beauty; and fixed upon the sloping shoulders of their Venuses and Apollos, heads gracefully rising in tapering pyramids. The Flat-Head Indians were known to alter the forms of their infants' heads by pressure of the skull when its bones are in a more or less cartilaginous state, and not yet firmly united. From this it was suspected that some such prank was practiced on these children of France; it was found that mothers and nurses had been employed for cen-

turies in the wholesale business of driving mad, maiming and murdering children by putting a peculiar cap upon the heads of their tender offspring and fastening it tightly there by means of a strong band. This simple cord has killed its hundreds and diseased an entire region. Dr. Foville in a necropsy on one of these country women found the venous circulation so impeded that a large plexus was formed for the accommodation of which a deep cavity was sunk in one of the lobes of the brain. Such customs like these survive in folklore long after the original superstitions which gave them birth; it is exceedingly probable that such crop out in descendants of these races to the present day, to confront the anthropologist with some remarkable crania. Tylor (Anthropology) is of the opinion that disrespecting the repressive action of the Government, the Bretons and Normans secretly continue this practice.

SCENES OF BEAUTY AND HOMES OF HEALTH.—The pages of the ALIENIST AND NEUROLOGIST are graced by many handsome home-like hospitals and sanitariums whose buildings and grounds are pictured on our advertising pages. There is beautiful and charming Oakwood and High Oaks, the Ozark Sanitarium and the Baptist Hospital, Oak Lawn, Burn Brae and Bellevue, Riverview, River Crest, and Westport, Greenmont-on-the-Hudson, The Hygeia, Falkirk and Crestview, the Richard Gundry Home, the Horace Wardner Sanatorium, William B. Fletchers and the Alpha, Gray Towers, Walnut Lodge and Waldo Coe's Cottage Homes, the Alma Sanitarium, Smith's Home for the Feeble Minded, Mayfield's, Patterson's Home for the Nervous, Interpines, Kensett, The Hudson Sanatorium, The Blue Hills Sanitarium and Hall-Brook. All of these places are efficient and well adapted to their purposes. Some of them are like homes in dreamlands of beauty and all have the appointments and comforts of well-ordered homes.

Located in different sections of the country you may choose them according to accessability or remoteness or according to climate and the sort of social and natural environment you may deem your patient needs for cure.

Communicate with them, visit them, learn all about their doctors and your consultation services will be all the more valuable to your patient.

OAK GROVE HOSPITAL CALENDAR is one of the handsomest pictorial calendars of the new year of the new century. Its attractiveness is due to the artistic presentation of the building and grounds of this well known home for the nervous.

HYSTERIA, profound hallucinations and delusions have many times in the world's history influenced normal minds as well as the hysterical to wrong action. The morbid emotionalism of hysteria, the illusions and auto-suggestion of its dream sphere, its imperative self-suggestion, its egoistic craving for attention, its morbid envy and jealousy, its caprices of erotism and dominance, like its paroxysms of causeless weeping and smiling, crying and laughing, its alternating anesthesia and its psychical exaltation and depression, its crises, its paralyses, its convulsions and spasmodic rigidity, as in hystero-epilepsy, its moral perversions, its beatific or diabolic visions, all these and the many more bizarre features of this singular mental affection, cause the alienist to consider with caution the statements of the gravely hysterical and weigh with allowance their asseverations in matters where they themselves are vitally concerned and they are the pivotal figures round which their romance revolves. Grave hysteria in the family councils and in court is the gravest of subjects for adjudication. Its visions have lead armies, founded religions, perverted faiths and bred crime.

The question of hysteria is likely to become a theme for judicial investigation as the outgrowth of a murder done at the instigation of a woman, either spurned or actually wronged, the murderer her husband, the victim a much-respected clergyman. When the trial is over the American public will know more than it does now, of the capacity of hysteria for inciting to crime.

Hysteria and the delusions of its gravely exalted states

has much to answer in the world's record of excited crime, as it has also sometimes incited its moral reforms and often its religious morbid exaltations of life.

MEDICAL GENERALS.—The *Boston Transcript* thus discourses: "Apropros of the nomination of General Wood to be a brigadier general in the regular army, it is an interesting fact that he is not the first surgeon who has made a high military reputation on being transferred from the staff to the line. General Samuel W. Crawford at the outbreak of the Civil War was a captain and assistant surgeon stationed at Fort Sumter. As one of Major Anderson's officers he took more than a surgeon's share in the defence of the fort, actually commanding one of the batteries that responded to the Confederate fire.

Transferred to the line of the regular army, he accepted a brigadier's commission in the volunteers and subsequently rose to the command of a division, serving with distinguished credit at Gettysburg and in Grant's Virginia campaign. After the war, in which he won brevet-general rank in the regular army, he long commanded a regiment stationed in the South, actively engaged in the enforcement of the reconstruction laws. General Crawford was generally esteemed a most capable officer, though he did not escape the prejudice line officers have against officers who come into the line from a staff corps, as the Medical Department is. Sheridan at one time protested against Crawford's selection for a high command on the ground that he had been a 'pill-roller,' but had to admit that Crawford was at least an exception.

At no time was general Crawford likely to succeed to the command of the army, and therefore he did not challenge line sentiment to the extent General Wood challenges it. In the natural order of promotions and retirements, Brigadier-General Wood, if confirmed as such, will become Lieutenant-General Wood in 1909, and will not attain retiring age until 1924. It is the prospect of the army being commanded for fifteen years by a lieutenant-general who began his military career as a surgeon that ruffles every feather in every chapeau of the army."

SLIGHTING THE ARMY MEDICAL STAFF.—Apropos of General Wood's and of General Crawford's well-merited promotion it is well to note of what stuff the medical staff of armies is often made. Baron Lowey, Napoleon's chief surgeon, was in many respects that great general's equal. His skill had much to do with the welfare and efficiency of Bonaparte's army. A silly and unjust disposition to ignore the claims of the medical staff to equal rank and emolument still persists in the army and navy, which must pass away before the highest efficiency in service can be obtained by our armies on land and sea. The patriotic and competent medical man foregoes the thrill of fighting while the battle is on and calmly works in danger's way to succor and save, by skill of science. The army surgeon must have quite as much natural ability and study quite as long to prepare himself in these days of astonishing scientific progress as the cadet who graduates at West Point or Annapolis. Why, therefore, should not his opportunity for advance in rank and honor be the same? He makes more sacrifice, if he be made as other men and with ambition for fame and glory, than the rank and file in infantry, cavalry or on the sea.

"A wise physician
Skilled our wounds to heal
Is more than armies
To the Public Weal."

What is a well manned, well officered or well ammunitioned and provisioned army without sanitation and without provision for minimizing the impedimenta of casualties, sickness and death?

The possibilities of increased efficiency in our army and navy lie as much in the advancement and proper recognition of its surgical, medical and hygienic service as in the courage on soil of officers and men and the power and perfection of its guns, gunboats and forts.

A MILITARY MEDICAL SCHOOL for an extra course in military medicine, hygiene and surgery would be a wise endowment of the Government in connection with West

Point and Annapolis. With provision for proper promotion and higher rank for the medical staff America should have the best organized army in the world if not the largest, and it is incentive to promotion and liberal provision for its members in all of the essentials of efficiency and advancement that makes an army great.

No aspiring, ambitious and competent man with the elements of greatness in him should be kept out of the Medical Staff by the knowledge that there is only a limited chance for medical promotion. The medical man of knowledge and power should have opportunity to go to the top and not have to forsake the medical staff to get there. The present army medical rank and recognition is too low for the best service.

A SYMPOSIUM between distinguished Alienists and others on the Sanity or Insanity of Saul of Tarsus, based on H. W. Southworth's book, "To Nazareth or Tarsus," especially chapter XVIII, is contemplated as a feature of the July number of the Alienist and Neurologist.

WANTED STATESMEN FOR THE PEOPLE.—Without being at all partisan it is plain that the American Congress should re-enter now upon an era of statesmanship in which the whole interests of all the people and the welfare of all the country should be considered.

The country, the constitution and the flag claim consideration above the personal interests of Legislatures or the money-making schemes of the Congressional Lobby. Congress should concern itself with what every well wisher of his fellow man is certainly interested, namely, the welfare of industry and labor. Labor well organized and well conducted in the interest of a good wage and fair service and respectful of the rights of man in all it does should have the ear and thought of Congress. The grasping capacity also of combined capital needs to be met and thwarted at the threshold of the Lobby. Organized oppression either of capital or labor needs to be dealt with by the strong arm of law. The rights of industry as well as of capital should

be sacredly guarded. Both should be made mindful of the rights of others. Injustice defeats the best interests of combined capital and labor alike, violence estranges public sympathy and oppression, kills the cause that employs it, whether of combined labor or of pushed capital. A just cause pushed forward with injustice stained with oppression and blood puts obstacles in its own way. Truth is mighty and will prevail. There is room for the right to triumph in every contest of labor and capital.

Overbearing capital can and must be righted now as in the past when usury laws were placed on the statutes of the nations and poor men were saved from the unjust grasp of the money power in the time of Licurgus, Henry the Eighth and between these historic epochs. The rights of workmen to a fair wage, sanitary length of daily service and surroundings must be secured to them by law as well as the right of any man to enjoy the privilege of employment when he wants it without interruption from his fellows. The national prosperity of a people is largely conditioned upon the physical satisfaction of both employer and employed, the contentment and tranquility of both capital and labor. Justice in legislation will accomplish both and all.

A PSYCHIC ALTERNATIVE.—It is natural for the normal mind to turn from scenes of sadness to those of mirth. Healthy minds, grief burdened, turn after a time of grief to scenes provocative of mirth. Those whose callings are habitually grave if well endowed mentally naturally seek the reaction of levity—"A little nonsense now and then is relished by the wisest men" etc. The alternating phenomenon of laughing and crying in certain phases of hysteria exhibit the alternating tendency, but it is not often that we see recorded the voluntary seeking of the house of mourning for relief from over pressure of mirth making, as in the following confession made by a theatrical employe to a representative of the *Philadelphia Record*. It is, says the theatrical, such a pleasant change in my employment. I must wear a gala smile at the theater at all times, and the gaiety there,

the mirth and light-heartedness prove very monotonous. I long for something in gloomy black, with a look of gloom in my eyes, and the sobs I hear, the groans, lamentations and the lugubrious music are very soothing to me after the eternal heartless jollity of the play house. The two kinds of work diversify my life; I touch on two extremes.

"Spring would be but gloomy weather
If we had nothing else but spring."

Long residents of California from eastern localities have told me they longed for alternating changes of clouds and sunshine as a relief from the perpetual bright rays of that sunshine state.

THE TRANSACTIONS OF THE SECTION OF NEUROLOGY. XIIITH INTERNATIONAL MEDICAL CONGRESS, Paris, 1900, have been published with unusual promptitude. The Secretary General, M. A. Chauffard and his collaborators and publishers, M. Pierre Marie, Secretary of the Committee of Publication, M. E. Dupré, A. Songues, and E. Feiendel, Secretary of the Séances, and Henry Meige the publisher, are entitled to the approbation of all interested. Without going into detail we may safely say from what we saw and heard of the papers and descriptions supplemented by an examination of the volume before us, that no more instructive volume has ever emanated from the neurologic section of any previous congress.

MEDICAL RANK AT VICTORIA'S OBSEQUIES.—The *Canadian Practitioner and Review* experienced something like a shock on reading the following in the *British Medical Journal* of February 9th:

"We understand that no officers of the Royal Army Medical Corps, except those with the men, were told off to take part in the Queen's funeral procession. The director-general of the Army Medical Service had no place in the procession, although the heads of the other departments, for instance the inspector-general of ordnance the inspector-general of fortification and some others were assigned places. Moreover honorary physicians and surgeons to the Queen,

who rank as majors-general, were not given places, while A.D.C.'s to the Queen, who are colonels, took part in it. Is it possible that the services of the medical officers during the war in South Africa are forgotten already? Or is the precedent of the Wolseley-Buller administration, so hostile to our brothers in the army, to be followed? We look for better things of Lord Roberts, who, if rumor speaks truly, has no reason to thank the Wolseleyites, and of whose kindness of heart and interest in medical affairs we have heard much. Let us hope that when the coronation occurs the head of the medical service, as representing not merely the army, but the profession, will receive the honor due to his position."

We are likewise surprised that such an indignity should have been given to the representatives of the noblest of professions, not, in any respect, beneath the army in worth and dignity and honorable desert. Medical men must mingle more in public affairs and assert their rights more vehemently, more forcibly or they will in the march of the world's progress be left to admire their own faces in the glass.

AN INTERESTING DISCUSSION on Trifacial Neuralgia and Gasserian Gangliectomy was a feature of a recent meeting of the St. Louis Medical Society. Neurology agrees with Matas that the surgery of the ganglion of the trigeminas is "the boldest and most adventurous operation of the century" just closed. It and cephalectomy and ventricular paracenteses are the marvels of nineteenth century surgical daring. It only now remains for the surgery of the twentieth century to "raze out the written troubles of the brain and pluck from the memory a rooted sorrow" to make its triumph complete and final.

THE STYLUS has been merged with the *Interstate Medical Journal* of St. Louis. W. B. Outten, Otho F. Ball, and Dr. William Porter will edit the *Interstate*, and Dr. George M. Gould's new weekly is to be called *American Medicine*. H. D. Reynolds is business manager.

THE TERM PSYCHIC INSULT, which the surgeons propose to substitute for the term mental shock, by which neurologists and alienists recognized the cerebro-spinal and sympathetic nervous system injury sequent to psychical and physical violence not accompanied by tangible structural solutions of continuity of texture and which the surgeons are just beginning to understand and acknowledge, especially railway surgeons, is an abominable substitute. All insults are psychic and the older terms, psychic shock and psychic violence, are far better. Let them stand, gentlemen of the knife. Accept the facts, they are incontestable, and the better terms that designate them.

INTRODUCING THE EDITOR IN CHIEF, Doctor Charles Hamilton Hughes. So many years have passed since this journal was founded and so many have become acquainted with the editor who have never met him in person, that we have deemed it our duty to show our face to our friends and patrons in this issue.

We should like to make a custom of presenting in each issue the faces of the journal's friends, collaborators and contributors. They would make an interesting array of faces, familiar in psychiatry, neurology and forensic medicine.

NUMEROUS EXCERPTS from the press reflecting on Dr. P. M. Wise have come to this office. An animus appears behind them.

The State of New York loses an excellent and long tried medical executive officer in Dr. Wise's removal from its service.

Dr. Wise makes the following statement in his own behalf in reply to Governor Roosevelt's charges, which he characterizes as groundless: "I have never used the state's credit and my official opportunities for personal gain, but on the contrary I have sacrificed what was to me an embarrassing amount to avoid even the appearance of this. This covers the whole case."

REVIEWS, BOOK NOTICES, REPRINTS, ETC.

SUICIDES ET CRIMES ETRANGES, by Dr. Moreau (de Tours), Paris, France. Société d'Editions Scientifiques, 1899.

This is a valuable discussion and history of peculiar suicides and strange crimes. It is interestingly written. The author, however, leans too much to the hypothesis that the strangeness and atrocity of a crime independently of motive, proves the irresponsibility of the criminal. The majority of alienists are agreed, however, that neither atrocity nor seemingly trivial motive by itself is evidence of insanity, since the varnish of the twentieth century covers a prehistoric folklore tendency which tends to make many seemingly trivial motives of great importance to the perpetrator of a crime. It is only a few years since the fairy changling notion led to a uxorcide in Ireland and the witchcraft notion some years later led to homicides in West Virginia. The book is well issued.

SULLA ORIGIN INFETTIVA DEL DELIRIO ACUTO, by Dr. L. Cappelletti Ferrare, Italy, Brecciania, 1899.

Of all the psychoses delirium grave, Bell's disease of typhomania seems the most probable to have a mycrobic origin because of the furibund character of the cerebral pathologic changes. It is true that the majority of these changes are demonstrably due to the violent action of moral causes. Still this was not irreconcilable with microbic origin, since the moral causes might furnish the suitable culture medium for the microbe. As Dr. Cappelletti has proven by the application of Koch's law no pathogenic microbe is to be discovered. Of course microbes in abundance in a

given disorder prove nothing unless the action of Koch's law demonstrates their pathogenic importance. Cappalletti leans to the opinion that, as the old clinicians surmised, the mental perturbations produced some violent toxin, whence the furibund nature of the pathologic changes. This psychosis needs demarcation in practice from the acute confusional insanity of exhaustion, with which it is often confounded.

LE SYSTEME NERVEUX CENTRAL, by Dr. Jules Soury, Paris, France, Georges Carre & C. Naud.

This is an interesting critical history of the theories of the structure and function of the central nervous system brought down to date. It discusses the hystory and principles of the cerebral localization, of neurons, of centers of projection and association as well as of intellection. It is issued in two volumes, large octavo, and is well illustrated.

PERVERSION SEXUELLE A FORME SADIQUE, by Dr. E. Regis, Lyons, France, A Storck & Cie., 1899.

This a discussion of fetichic sadism centered around a case whose sexual life was determined by witnessing the spanking of a fourteen year old sister, when about five years old. The nates henceforth were the chief center of his sexual imaginings. Indirectly the evolution of homicidal sadism is portrayed in this case. Dr. Regis believes that predisposition has much to do with the circumstances of the sexual appetite and their direction.

SANITY OF MIND, by D. F. Lincoln, M. D., New York and London, G. P. Putnam's Sons, 1900.

This is one of the many monographs issued by a firm which has, as its advertisement states, great facilities for issuing monographs at the expense of the author. The book contains a number of valuable quotations injured by their misapplication and conjunction with puerile lucubrations. The author fails to grasp *in toto* the modern conception of degeneracy, and confines this entirely to the moral side. The book deserves criticism as tending to increase the al-

ready confused notions of the public on a very confused subject. In his discussion of Weissmann he fails to recognize that Weismann's admission of a "habit" produced by tuberculosis in the parent vitiates the validity of his absolute position as to the non-inheritance of acquired characters. He is, moreover, unacquainted with the researches at the Naples Aquarium, which have demonstrated that the very bases of the Weissmannian doctrine as to a distinction in in the ovum between the germ plasm and the body plasm is non-existent. The author ignores many American researches on his subject, but ostentatiously quotes certain society physicians who have written nothing. The book is well issued by the publishers.

MEMORY, by F. W. Colegrove, Ph. D., DD., New York, Henry Holt & Co., 1900.

This is a very weak rehash of Ribot, dashed with an obscuring metaphysical sauce. It contains nothing especially new or newly put, and is so far inferior to Ribot's work that the two do not deserve to be mentioned in the same category.

FLATAW & JACOBSON'S HANDBOOK OF CENTRAL NERVOUS SYSTEM ANATOMY.

We are indebted to that excellent Berlin book store to the profession, under the management Herr S. Karger, No. 15 Karl Street, Berlin, N. W., for the the Handbuch der Anatomie une Vergleich-enden Anatomie des Central Nervensystems der Säugetiere von Dr. Edw. Flataw in Warschaw, and Dr. L. Jacobson in Berlin, with one hundred and twenty-six illustrations of the text and twenty-two Anatomical plates and seven tables "I Makroskopisher Teil."

Our tardy acknowledgement of the receipt of this meritorious book is due to its having miscarried in coming earlier to our notice. But the lapse of a little time does not dim the luster of such an advanced work. Nay, the lapse of decades will not destroy its great value. The fame of the book will be cosmopolitan and immortal, notwithstanding our temporary neglect to give it earlier notice. Its

text is concise, its teachings accurate and advanced and its illustrations so perfect that they will be imperishable. If the forthcoming microscopical part equals in merit the present macroscopical (and who can doubt it will?), the thanks of posterity as well as of our day will herald the names of the authors in immortal fame.

The book is appropriately dedicated to Professor Waldeyer, the author's instructor in "Dankbarheit Gewidment."

PHYSICIANS' MANUAL OF THERAPEUTICS, Referring especially to the Products of the Pharmaceutical and Biological Laboratories of Parke, Davis & Co. Flexible Morocco, 12 mo., pp. 526, Detroit, 1900.

In his preface to this excellent little book, the author says "There has been much well-meaning derision of 'elegant pharmacy' but we do not sympathize with it; and the products enumerated in this volume are deliberately made as sightly, palatable and inviting as possible without sacrificing any of that therapeutic efficacy which is the supreme end of medication." That sentence contains as in a nutshell, the whole secret of the great success of Messrs. Parke, Davis & Co. While their pharmaceutical preparations are elegant, they are honest, and always up to the required standards of medicinal strength. The Physicians' Manual has evidently been brought forth under the same conditions. It has a handsome cover, it is durably bound, and an examination of its pages discloses the fact that it is full of "meat."

This Manual will be sent free to any physician who will send address to Parke, Davis & Company, Detroit, Michigan.

PRELIMINARY REPORT with Projection Drawings, illustrating the Topography of the Paracœles in their Relation to the Surface of the Cerebrum and Cranium: Dr. E. A. Spitzka, New York City. (Illustrated by drawings and diagrams.)

Since the tapping and injecting into the ventricles have become definite procedures in surgery, it would greatly aid

the operator to have a more accurate conception of the extent, depth and contour of the cavities, with their variations, than can be had from the bare rules and measurements set forth in most surgeries. With this view the author utilizes the entire head, hardened by injection of, and submersion in, formal. After a time the cranium is opened and the brain is accurately sliced, correct drawings being made at each step and projected for the delineation of the final plates. Two heads have so far been completed. It is proposed to decalcify the skulls of subsequent material, the entire head being then subjected to the slicing method. [Published in *New York Medical Journal*, February 2, 1900.]

THE THIRD EDITION OF CHURCH & PETERSONS, just from the press, presents many new and valuable features to enhance our already high appreciation of the book. Among them the new addition presents the following modifications from the previous issues. The chapter on Cerebral Meningitis is entirely rewritten. The section on Localization or the Functions in the Segments of the Spinal Cord will contain an additional tabular exposition upon the Monograph of Wichmann, with diagramatic demonstrations of areas of anesthesis and parathesia that should be very valuable in making topical diagnoses of cord lesions. New sections are supplied on the subject of Family Tremor and Family Periodic Paralysis. About twenty new illustrations of a clinical character are added, in addition to numerous diagrams. Double page modifications of Fowler's plates showing the distribution of nerves to muscles and skin, which are of very great use in the diagnosis of peripheral lesions, are added.

The book should be on every Neurologist's book shelf.

STRINGTOWN ON THE PIKE. Price $1.50. Dodd, Mead & Co., New York. Publishers.

Besides containing considerable information concerning the "Stringtown" county, of Kentucky, this book puts you in touch with an interesting chemical fact which for a long time was differently interpreted. It contains a valuable

lesson in toxicology and is an interesting and romantic story of Kentucky life with a chemico-medical moral and the proof that truth in chemistry is even stronger than fiction.

In "Stringtown on the Pike," by John Uri Lloyd, an interesting point of early law is mentioned in the trial of "Cupe" where he takes advantage of what was then known as the "Right of Clergy" it being the privilege of the Negro about to be sentenced to enter such a plea and if the Negro could read the Constitution of the United States, he was allowed his freedom after being branded on the palm of the hand, in order to prevent his exercising the right on more than one occasion. The last time this plea was allowed in Kentucky was in the Barren Circuit Court, where a Negro was on trial for rape and as the prosecutrix was a white woman he was sentenced to death, although the evidence was clearly insufficient. The judge, sympathizing with the prisoner, instructed his attorney to bring in this plea as a means of saving him. The Negro on being tendered the Constitution of the United States and being found able to read it, was branded in the hand and set free. The plea was in 1847 abolished by the legislature.—*Sixth Kentucky Law Reporter*, p. 508.

This statute was carried into Kentucky law from England where it was known as the Right of Clergy and it was allowed but once to a claimant who was then branded in the palm or ball of the thumb to prevent a second appeal. Few Americans are aware that this law ever obtained a footing in this country. See "Neck Verse" usually Psalms, LI: 1, which if the prisoner could read entitled him, after branding, to his freedom, thus saving his neck.

JAHRESBERICHT UEBER DER LEISTUNGEN UND FORTSCHRITTE auf dem Gebeidete der Neurologie and Psychiatrie. Edited and published by Dr. E. Flataw and Dr. L. Jacobson and with the editorial approval and collaboration of Professor E. Mendel, of Berlin.

With these eminent names as sponsors for this great and valuable work no further commendation is necessary to the zealous investigator in neurology and psychiatry. The

book is indispensable to whoever aspires to scholarly acquisition in these great fields of scientific neurological research and practice.

TRANSACTIONS OF THE IOWA STATE MEDICAL SOCIETY 1900.

This valuable book, especially interesting to the ALIENIST AND NEUROLOGIST, in the following particulars: The papers are all advanced and creditable to their authors and several of these authors are known to the readers of the ALIENIST AND NEUROLOGIST already through their previous good work. Dr. Boody's illustrations of Katatonia, Dr. Bennett's Brain Findings in Epilepsia, Dr. Styner's Movements of the Neuron, Dr. Littig's Etiology of Neurasthenia, Dr. Hill's Dementia Praecox, and the President's address on Mental and Nervous Disease would all make good reading in the ALIENIST AND NEUROLOGIST.

BRAITHWAITE'S RETROSPECT OF MEDICINE, for January, 1901, (Vol. CXXII.) is on our table presenting its accustomed time-saving and choice epitome of the literature of the profession.

Its possession will prove a time-saving, economical investment. In it, as you can in your daily rounds, doctor, you may read the doings of the day in medical practice. It's a snap shot epitome of real value to you. Putnam's Sons, New York and London, Publishers.

THE MARCH NUMBER of *Progressive Medicine* comes to our table laden with the following attractive list of contents: Surgery of the Head, Neck and Chest, by J. Chalmers Da Costa, M.D.; Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza, by by Fred. A. Packard, M.D.; Diseases of Children, Floyd M. Crandall, M.D.; Pathology, by Ludwig Hektoen, M.D.; Laryngology and Rhinology, by A. Logan Turner, M.D., Edin. F. R. C. S.; Otology, Robt. E. Randoph, M.D.

The book keeps up to date in the record of medical and surgical progress.

THE MENTAL SYMPTOMS OF CEREBRAL SYPHILIS, by James H. McBride, M. D., member Congress of American Physicians and Surgeons; American Academy of Sciences, etc. Reprinted from the *Journal American Medical Association*, February 2, 1901.

This is a good clinical presentation of the subject by a practical alienist, well qualified to write upon it. The author on page three makes the diagnostic point that incongruity between conduct and pretensions (delusions) characterizes syphilitic more than other insane persons. We have ourselves observed this. The fact is true of chronic forms of syphilitic insanity especially and exists in some long-standing paronoiacs.

DRUG STANDARDIZATION AGAIN. This editorial in *Buffalo Medical Journal*, January, 1901, pays Parke, Davis & Co. the following well-deserved compliment:

"The well-known house of Parke, Davis & Co., who were the pioneers in drug standardization, have for many years marketed a trustworthy line of assayed fluid extracts which are made to conform rigidly to fixed standards of alkaloidal strength."

This editorial concludes as follows: "The manufacturing pharmacist should do this work for us. He has facilities that are not available to the physician and the dispensing pharmacist. Let the manufacturer of drug extracts standardize his preparations by chemical assay when possible, and by physiological assay when the older method is inexpedient. Then the physician will be spared the humiliation of palpable impotence in the face of danger; there will be no occasion for needless experiment at the bedside, where so frequently prompt drug action saves lives that are too valuable to be imperiled by unscientific methods in pharmacy or therapeutics."

The day of the dispensing pharmacist as a manufacturer is as certainly passing as old methods in other spheres of human effort. Selected trial and standard preparations made by men of repute whose reputation and capital and business success are all staked upon accuracy, quality and unvarying

purity and strength are coming on to take the place of the uncertain compounds made for our ancestors by dispensing druggists and called officinal. The preparations of many reliable pharmacists may be found in our advertising pages, all equally reliable. The manufacturing pharmacist today who makes special compounds relieves the medical man of much doubt as to the quality of his prescribed medicine, *i. e.*, manufacturing pharmacists whose products are announced in our pages.

SOME REMARKS ON THE PLANTAR REFLEX, with Especial Reference to the Babinski Phenomenon, by J. T. Eskridge, M. D., Denver, Colorado. Reprinted from the *Journal American Medical Association*, January 19 and 26, 1901.

This is an exhaustive, painstaking and meritorious presentation of the subjects embraced in the above caption by a reliable observer and able neurologist, already well known to our readers.

The author's conclusions are drawn from observations made on three thousand three hundred and eighty cases, eight hundred and thirty cases having been studied with reference to the Babinski phenomenon. The following are the author's conclusions:

First—The Babinski phenomenon is an extremely valuable sign in diagnosis, and probably in progress and prevention.

Second—It is not a pathognomonic sign of organic disease of the lateral tract.

Third—We shall learn by subsequent observations that several poisons or conditions so irritate the lateral tract as to cause a pseudo-Babinski phenomenon, or an apparently genuine one temporary in character.

Fourth—Greater care should be used by the investigator, and the carefully studied cases should be much more numerous.

This is the most complete study of this interesting subject to be found up to the present time in the literature on this subject. We regret that we have been compelled to abridge it in its presentation.

The neurological reader will note with interest and recall Cohn's conclusions that the extension reflex of the toes is not an absolute pathological sign.

SYMMETRICAL DEVELOPMENT of School Children is the subject of a valuable and timely paper by E. Stuver, M. S., M. D., Ph. D., Fort Collins, Colorado, in which the author asks the important question, "Does our present school system develop the highest powers of the pupil?" and justly answers the same in the negative. He calls attention, none too soon, to the following errors: (first) during the early, plastic years of childhood young children are given too many studies; (second) the daily sessions are too long; (third) recitations are generally too long; (fourth) intermissions or periods of relaxation are not frequent enough, and the children do not have enough exercise in the open air, with free spontaneous, unrestrained play; (fifth) pupils are frequently deprived of the privilege of attending to the calls of nature; (sixth) the system of examinations generally followed is attended by many evil results; (seventh) many teachers resort to cruel, dangerous and harsh punishments, instead of whipping, when corporal punishment is necessary, and sustains his statements. The tender nervous systems of growing children are roughly handled by modern school methods, and the naturally active brains of our children are prodded to over action, which brings brain-stunt and brain-break and weakens organic resistance to mortal diseases.

CLINICAL STUDY OF THYROID EXTRACT, by Wm. F. Drewry, M. D., and J. M. Henderson, M. D. Reprinted from Proceedings of the American Medico-Psychological Association, Richmond, Va., 1900.

"Of the animal extracts, thyroid was the first to attract the attention of the medical profession. Its usefulness has been tested by capable investigators in the treatment of cretinism, myxœdema, catalepsy, tetany, torticollis, epilepsy, Graves' disease, some skin diseases, uterine fibroids, amenorrhœa, insanity, etc., with varying degrees of satis-

faction to the patient and the experimenter," and though its therapeutic value has not yet been definitely determined, it has found a valued place in the therapy of neuropathic and arrested and perverted developmental states. The authors have further elucidated the subject in relation to the insanities in manner profitable to study. The authors present a table of clinical study of ninety cases which will interest and instruct the many psychiatric clinicians who read the ALIENIST AND NEUROLOGIST.

A PRELIMINARY COMMUNICATION, with Projection-Drawings, illustrating the Topography of the Paracœles (lateral ventricles) in Their Relations to the Surface of the Cerebrum and the Cranium, by Edward A. Spitzka, New York, student of medicine, College of Physicians and Surgeons. Reprinted from the *New York Medical Journal*, February 2, 1901.

We acknowledge receipt, with the author's compliments, of this praiseworthy, practical and very successful effort to classify a hitherto not over-clear subject, viz.: the correct location and way to the lateral ventricles. The author's diagrams and text will entertain and profit the reader, the former being especially instructive to the brain surgeon.

This preliminary communication of the author is warrant of much further promise. Edward A. is likely to become as distinguished a cerebro-anatomist as his eminent father, E.C.

CHLORALAMID, by S. V. Clevenger, M. D., of Chicago, author of Medical Jurisprudence of Insanity, etc. Reprinted from the *Medical News*, December 8, 1900.

This is a good clinical review of the subject, giving much therapeutic information.

BIBLIOGRAPHISCHER SEMESTERBERICHT der Erscheinungen auf dem Gebiete der Neurologie und Psychiatrie. Von Dr. med. et. phil. G. Buschan. Fünfter Jahrgang, 1899. Zweite Hälfte. Jena, Verlag von Gustav Fischer.

This is an excellent bibliography for the German and cosmopolitan medical writer and investigator and should

have a place in the library of every advanced student of medical literature. Its appropriate motto is *Semper Bonis Artibus*.

TUBERCULOSIS OF THE TESTICLE, with special Consideration of Its Conservative Treatment, by John B. Murphy, Chicago.

This is the best monograph on this subject that has come to our review table. It bears the impress of a master's hand, both in description and technique. The skiagraphs of the vas and mercury injected tube and of spermatic artery, figures 1 and 2, will especially interest the genital surgeon. All the twelve illustrations are interesting, like the text.

A PROVISIONAL HANDBOOK of Hæmatherapy, or Auxiliary Blood Supply in Medicine and Surgery.

This book maintains that the greatest therapeutic discovery of the age, and of ages, is that where we cannot produce good blood we can introduce it.

Fibroma of the Ovary Hernia or Diverticulum of the Chorion. By Leonidas N. Laidley, M. D.., Professor of Gynecology and Pelvic Surgery, Beaumont Hospital Medical College; Surgeon to Protestant Hospital; Consulting Surgeon to St. Louis City Hospital; Member American Medical Association, American Association of Gynecologists, etc.

Early American Medicine, being the address of the retiring president of the St. Louis Academy of Medical and Surgical Sciences. By James Moores Ball, M. D., St. Louis, Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons; Ophthalmologist to St. Joseph's Ophthalmic and Surgical Sanatorium.

Rigidity of the Spine with Ankylosis and Deformity of other Joints. A clinical lecture delivered at the Arapahoe County Hospital, Denver, Colo. By J. T. Eskridge, M. D., Alienist and Neurologist to St. Luke's Hospital, and Consulting Alienist and Neurologist to the Arapahoe County Hospital.

Address, Delivered at the Opening of the First New York State Conference of Charities and Corrections, held in the Senate Chamber, Albany, November 20, 21, 22, 1900. By William Pryor Letchworth LL. D., President of the Conference.

The Insane. Extract from "The Insane of Foreign Countries." By William Pryor Letchworth, Ex-President of the New York State Board of Charities and of the Eleventh National Conference of Charities and Correction.

Syphilis of the Nose. By Robert Levy, M. D., Professor or Laryngology and Otology, Gross Medical College; Laryngologist to Arapahoe County, St. Luke's and National Hospitals, etc., Denver, Colo.

Revised Interpretation of the Central Fissures of the Educated Suicide's Brain Exhibited to the American Neurological Association in 1894. By Burt G. Wilder, M. D. [Abstract.]

If an "Isthmus Rhombencephali" Why Not an "Isthmus Prosencephali?" [Abstract.] By Dr. B. B. Stroud, Cornell University.

The Mesial Relations of the Inflected Fissures; Observations Upon One Hundred Brains. By Edward A. Spitzka, New York.

Diphtheria Antitoxin. A Résumé of Its History, Statistics, Immunizing Value, Dosage, Method of Administration, etc.

The Removal of Dr. Peter M. Wise as President of the New York State Commission in Lunacy.

What Can We Do for the Chronic Invalid? By Curran Pope, M. D., Louisville, Ky.

A Discourse on the Therapeutic Action of Formaldehyde. By Clarence L. Lewis, M. D.

Abdominal *vs.* Vaginal Hysterectomy. By Henry O. Walker, M. D. Detroit, Mich.

Treatment of Tuberculosis by means of Glandulen. A Specific Organic Remedy. By Dr. Hoffmann.

Why Hydriodic Acid Is Superior to All Other Forms of Iodine For Internal Use. By R. W. Gardner, New York.

Emilè Zola: A Psycho-Physical Study. By Arthur MacDonald, Washington, D. C.

Pus Tubes. By G. Wiley Broome, M. D., St. Louis.

Report of the County Lunatic Asylum at Prestwich.

Fourth Annual Report of the Managers of the Manhattan State Hospital at New York to the State Commission in Lunacy, Dr. A. E. Macdonald Superintendent, for the year ending September 30, 1899.

Twenty-Ninth Annual Report of the Buffalo State Hospital to the State Commission in Lunacy, for the year ending September 30, 1899.

Forty-Seventh Annual Report of the Trustees of the Taunton Insane Hospital, for the year ending September 30, 1900.

Third Annual Report of the Managers of the New Jersey State Village for Epileptics, for the Year Ending October 31, 1900.

Sixth Biennial Report of the Board of Trustees of the Delaware State Hospital at Farnhurst, December, 1900.

Fifth Annual Report of the Board of Managers of the Springfield State Hospital of the State of Maryland.

Report of the State Hospital at Morganton, N. C., from December 1, 1898, to November 30, 1899.

Report of the Board of Trustees of the Michigan Asylum for the Insane for the Years 1899-1900.

(EDITORIAL.)

WHY DID HE TAKE HIS LIFE? is the daily surprised interrogatory concerning some suicide in St. Louis or elsewhere. The question was but a few days ago asked about the "Angel Singer" in a popular church who went with his delusions of suspicion, foreshadowing his fate, to his pastor when he should have been taken at once to an alienist, who might in time, have put proper chemical breaks on his breaking brain and in time have restored it.

"What have they against me? They are conspiring against me" was the significant symptom of the oncoming crisis of insanity which the psychiatric physician knows so well.

In Bloomingdale Asylum today are Boutwell and Boutelle, whose voices have charmed in Legislative halls as Humphrey's songs entranced from the choir of the Second Baptist Church of this city, and Maurice Barrymore has just been sent, insane, to Bellevue. Many others have gone as suddenly out of active life to Bloomingdale. It was here that Horace Greeley was sent, insane, after his race and failure for the Presidency, not much more than a year after one of the reporters of his paper, the *Tribune*, had ruined the life of my friend Tilden Brown, the medical head of that institution and one of the greatest and best of medical men, by a sensational report of the cruelties of Bloomingdale, which never existed but which consisted of the necessary forceful feeding and treatment of patients who had to be so treated or permitted to die, as they wished to.

Humphrey took his life as most other morbid-minded do, because of lack of timely treatment and needful restraint.

MELLIN'S FOOD

for the Home Modification of FRESH COW'S MILK

Simple dilution of cow's milk with water is without avail in obviating the tendency of the milk to form tough and more or less indigestible curds.

PROFESSOR CHITTENDEN

The use of a natural cereal extractive containing saccharine and gummy matters and soluble albuminoids as well, such as our great and inspired teacher Liebig himself advocated, is in accordance with the developments of science since his time. Mellin's is a genuine Liebig's Food.

PROFESSOR LEEDS

MELLIN'S FOOD COMPANY. BOSTON, MASS

PUBLISHER'S DEPARTMENT.

ONE OF THE BEST newspaper men that ever lived once said that a competent managing editor was one who knew where the mischief was going to break loose next, and had a man there—or words to that effect. *Collier's Weekly* goes on that very principle.

With the idea that South America may supplant South Africa and China as a war news center, its editors have sent a special correspondent and a special photographer to Venezuela.

Tempests in teapots are common down there, but this is one that looks like it might boil over and burn the cook.

PARKE, DAVIS & CO., announce that Professor Joseph McFarland, M.D., formerly of Philadelphia, has associated himself with them in their bacteriological department. Dr. McFarland is a recognized authority and writer in bacteriology. This firm is to be congratulated upon this new association.

DR. CYRUS EDSON, of New York Health Department, and Dr. Libermann, Surgeon-General of the French Army, advice special use of hot grogs as adjuvant in treatment of La Grippe.

H. Libermann, M.D., Surgeon-General of the French Army, in an article on "La Grippe" (Influenza), recommends the following hot grog: "One third goblet of Vin Mariani, with two-thirds boiling water, add cloves and cinnamon, and with or without sugar, making a grog of exquisite flavor, which produces immediate beneficial effect in severe cases of cold, attended by convulsive coughing and depression, the principal symptoms of La Grippe. It is

INFLUENZA

"One part 'VIN MARIANI' with two parts boiling water, sweetened to the taste, add cloves and cinnamon, makes a grog of exquisite flavor, which produces immediate beneficial effect in severe cases of cold attended by convulsive coughing."

H. Libermann, M. D.,
Surgeon General, French Army.

LA GRIPPE

"Influenza (La Grippe), where patients suffer with high fever, catarrh in the head, and complete prostration, the most effectual adjuvant in treatment is a strong, generous, diffusible tonic, such as 'VIN MARIANI,' plain, also in form of hot grog."

Dr. Cyrus Edson,
Chief of Health Department,
New York.

Impotency Cases

It matters not how hopeless; cured or relieved by our combination.

Helantha Compound.

Helianthus annuus [sunflower.] Fr. root, bark, H. Australian. Plain or with diuretic.

Has a powerful action upon the blood and entire organism, is indicated in **all cases** complicated with **Malaria, Scrofula,** impoverished Blood, Anaemia, etc., etc., in conjunction with Pil Orientalis (Thompson), will control the most obstinate cases of **Impotency.** "Drink Cure" cases, saturated with Strychnine, "Weak Men" cases, who tried all the advertised "cures" for impotency, and were poisoned with Phosphorus compounds, readily yield to this treatment. Pil Orientalis (Thompson) contains the Extract Arnosia Orientalis.

The Therapeutical value of this Extract as a **powerful Nerve and Brain tonic,** and **powerful stimulant of the Reproductive Organs in both Sexes, cannot be over-estimated.** It is not an irritant to the organs of generation, but A RESTORATOR and SUPPORTER, and has been known to the native Priests of India, Burmah and Ceylon for ages, and has been a harem secret in all countries where the Islam has planted the standard of Polygamy.

It is impossible to send free samples to exhibit in Impotency cases, requiring several weeks treatment, but we are always willing to send complimentary packages of each preparation (with formulas and medical testimonials) to physicians who are not acquainted with their merits.

Prices: { Helantha Compound, $1.85 per oz. Powder or Capsules.
{ Pil Orientalis (Thompson) $1.00 per box.

THE IMMUNE TABLET COMPANY, WASHINGTON, D. C.

AGENTS:
Meyer Bros. Drug Co., St. Louis.
Lord, Owen & Co., Chicago.
Evans-Smith Drug Co., Kansas City.
Redington & Co., San Francisco.
J. L. Lyons & Co., New Orleans.

CLARK
ENGRAVING CO.
MEANS—THAT YOU CAN GET HIGH GRADE CUTS FOR ANY KIND OF LETTER PRESS PRINTING——AT 84 MASON ST. MILWAUKEE
HALFTONES ON ZINC OR COPPER
WOOD ENGRAVING COMMERCIAL PHOTOGRAPHY &
ORIGINAL DESIGNERS & ARTISTS

best taken at bed time. In the grip epidemics in France Vin Mariani was the tonic absolutely relied upon, and has received frequent deserved mention in the medical press. It has been shown that patients recover very slowly, there is much general weakness and lassitude, invariably calling for something in the nature of a mild tonic stimulant, and and it has been found that Mariani Wine is unequalled for such cases."

Dr. Cyrus Edson of the New York Health Department has made a careful study of the subject in his book on "La Grippe," published by Appleton & Co. On page 39 he writes of Vin Mariani and calls special attention to it in the form of a hot grog. In speaking of the complete prostration accompanied by the depression caused by this disease, and also during entire convalescence, his preference for a tonic stimulant is a hot grog of Vin Mariani. He says it is excellent for the purpose intended, and recommends its use freely.

AMERICAN CONGRESS OF TUBERCULOSIS.—It is announced that the Second Annual Meeting of the American Congress of Tuberculosis will be held at the Grand Central Palace, in the City of New York on the 15th and 16th days of May, 1901, in joint session with the Medico-Legal Society of New York. That a dinner will be given to the members and guests. It is proposed to open a Museum of Pathology, Bacteriology and Public Health, with an exposition of electrical and other instruments; with the use of the power furnished at the building, which it is intended to be made most complete, educating and attractive; of all appliances used in any way in arrest or treatment of the disease.

The leading manufacturers have enlisted already, many of them, and the display will be on an extensive scale. The object of the Congress will be to exchange the information and experience gained throughout the world, as to forces and methods most available for the extermination of consumption, which at the present moment is a disease, the most destructive of human life of any that now afflicts humanity.

THE MK AND T
MISSOURI, KANSAS & TEXAS RY.

FAST TRAIN

"The Katy Flyer"

BETWEEN

ST. LOUIS,

KANSAS CITY,

CHICAGO,

Has Through Sleepers

TO



GALVESTON, SAN ANTONIO AND AUSTIN, TEX.

Also Intermediate Points.

Excursion Sleepers leave St. Louis for Texas, New Mexico, Arizona and California every Tuesday, 8:16 p. m.

C. HAILE,
Traffic Manager,

JAMES BARKER,
General Passenger and Ticket Agent.

ST. LOUIS, MO.

The medical profession of all countries will be invited to contribute papers to be read before this Congress, in their behalf by a committee selected for that purpose; in case of the inability of the author to attend; and to enable those who could not hope to expect to be present, to participate in the work and usefulness of the body. As the questions to be discussed involve remedial legislation, legislators, lawyers, judges, and all publicists, who take an interest in the subject, are also invited, both to enroll and contribute papers.

The papers should be forwarded to the Secretary on or before the 15th day of April next, and the title of the papers forthwith to facilitate classification, as the time is short. The enrolling fee will be $3, entitling the member to the Bulletin of the Transactions free.

The complete list of officers and committees will be announced as early as possible. The preliminary announcement is now made to obtain the names of those who will co-operate in the Congress, and an early classification of the subjects and titles.

PRIZE ESSAY ON THE DANGERS FROM QUACKERY. —The Colorado State Medical Society offers a prize of twenty-five dollars for the best essay, if deemed worthy of the prize, pointing out the dangers to public health and morals, especially to young persons, from quackery as promulgated by public advertisement.

The competition is open to all. Essays must be typewritten in the English language, and submitted before May 15th, 1901. Each essay must be designated by a motto; and accompanied by a sealed envelope, bearing the same motto, and enclosing the name and address of the author. The essay winning the prize will become the property of the Society for publication. Others will be returned on application. Essays should be sent to the Literature Committee, Room 315 McPhee Building, Denver, Colorado.

JUST NOW it is a matter of common observation that many cases of bronchits will persist in spite of the con-

The Treatment of

EPILEPSY AND THE NEUROSES

SUCCESSFULLY ACCOMPLISHED
...BY THE USE OF...



HYDROCYANATE OF IRON (TILDEN'S)

A STANDARD NEUROTIC REMEDY,

——INDICATED IN——

EPILEPSY	LOCOMOTOR ATAXIA	HYSTERIA	NEURASTHENIA
MANIA	NEURALGIA	CHOREA	MIGRAINE

DOCTORS, INVESTIGATE! Write us for literature and clinical reports on the treatment of EPILEPSY and NEUROSES. We have on file in our office hundreds of testimonials from men of prominence and ability in their chosen profession, who have employed HYDROCYANATE OF IRON (Tilden's) with unvarying success in the treatment of EPILEPSY. Copies of same cheerfully mailed upon application.

Prepared Exclusively for Physicians' Prescriptions.

SOLD ONLY IN OUNCE CARTONS, 1/2 AND 1-GRAIN TABLETS.
$1.00 PER OUNCE.

PREPARED ONLY BY

THE TILDEN COMPANY,

Manufacturing Pharmacists,

NEW LEBANON, N. Y. ST. LOUIS, MO.

The Western Clinical Recorder

(BI-MONTHLY).

A Pithy, Practical Periodcial for Practicing Physicians

that will keep a man fully abreast of the times, if he can afford but one, and one that the practitioner who takes twenty cannot afford to do without.

The RECORDER will be found to be an original, clean, ethical, inexpensive periodical; a continuous post-graduate course in all departments of medicine and surgery.

THE USEFUL JOURNAL FOR THE BUSY MAN, $1.00 Per Year in Advance;

which subscription may be sent to the office of publication, Lakeside Press, Chicago, or to the Editorial Office, Ashland, Wisconsin.

tinued, varied and judicious use of expectorants. "The cough," says one prominent physician, "hangs on, harasses the patient with its frequency and severity, and is exceedingly liable to recur every winter—to become a regular 'winter cough'—with its sequelæ of emphysema, asthma and ultimately, dilatation of the right heart."

Dr. Milner Fothergill of London insisted that cough of this character is due to lack of tone, not only in the general system but in the blood vessels of the bronchioles. This authority demonstrated that the only successful method of treating this form of cough is by means of appropriate systemic and vascular tonic medication. It is particularly in this class of cases that Gray's Glycerine Tonic Comp. has gained a most enviable reputation. This remedy, which is a most palatable and agreeable one, not only has a selective tonic and anti-phlogistic action upon the respiratory mucous membrane, but it removes the ever-present element of systemic depression. The beneficial effects of Gray's Glycerine Tonic Comp. even in rebellious cases, are invariable and most pronounced.

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION. —Office of the Secretary, Oak Grove Hospital, Flint, Mich. To Members: The next meeting of the American Medico-Psychological Association will be held in Milwaukee, Wis., June 11, 12, 13, and 14, 1901. The date has been placed a little later than usual that this deservedly popular convention city may be visited at a pleasant season.

Hotel Pfister, selected for the meeting of the Association, has ample accommodation for all members and offers special rates. Its rooms are airy, spacious, and well furnished; it has an excellent auditorium, a pleasant restaurant, and a large banqueting hall.

A full attendance at the meeting, which promises to be one of unusual interest, is earnestly desired.

Will those members expecting to read papers, kindly send titles thereof to the secretary as early as possible.

It is announced with much satisfaction that Dr. War-

WE SUPPLIED ALL THE CITY INSTITUTIONS WITH DRY GOODS LAST YEAR.

WM. BARR DRY GOODS CO.

Keep the Largest Stock of Goods suitable for

HOSPITAL PURPOSES

TO BE FOUND IN ST. LOUIS,

And Special Terms will be made with all Institutions ordering from them.

BEDDING MATERIALS OF ALL KINDS,
UNDERCLOTHING, IN SILK, WOOL AND COTTON,
LADIES' AND CHILDRENS' READY-MADE CLOTHING,
FLANNELS AND UPHOLSTERY,
TABLE AND BED ROOM LINENS,
SOAPS, NOTIONS AND PERFUMERIES,

ARE ALL SPECIALTIES AT THE

WM. BARR DRY GOODS CO'S

NEW BUILDING,

SIXTH, OLIVE AND LOCUST, - - - ST. LOUIS.

P. S. Write and find out our special terms to Hospitals.

HALL-BROOKE, A PRIVATE HOSPITAL For Mental and Nervous Diseases

CASES OF ALCOHOLISM AND DRUG HABIT.

An inviting quiet **hospital** for the careful medical care of acute mental diseases, with a refined congenial **home** for the chronic mental invalid. The location is unsurpassed for healthfulness and charming environment. Cases of alcoholism and drug habit may commit themselves. For information and rates address

DR. D. W. McFARLAND,
GREEN'S FARMS, CONN.
Hours, 12-1 and by appointment.

New York Office with **Dr. LAWRENCE,**
55 East 65th St.
New York Telephone 591-79th St.

ren P. Lombard, Professor of Physiology in the University of Michigan, will deliver the annual address. This will have to do with Re-enforcement and Inhibitation of Nervous Processes.

Very Respectfully,
C. B. BURR,
Secretary.

DR. T. D. CROTHERS' *Quarterly Journal of Inebriety*, January, 1901, endorses "Antikamnia as one of the standard remedies in Influenza. He has never seen a case of addiction to antikamnia, hence he prizes it very highly as one of the most valuable remedies for diminishing pain without peril, especially the pain following the withdrawal of morphia. 'Laxative Antikamnia & Quinine Tablets' besides its antipyretic and analgesic effect, is without griping, nausea and other unpleasant effects generally produced by purgatives when administered alone."

THE USE OF BROMIDES IN HYSTERIA, DELIRIUM, ETC., by J. S. Murphy, M. D., Sullivan, Ind. Considerable has been written on this subject which has all the respectability of ancient lineage. And like most other obscure things, has received no stint of authoritative attention.

The ætiology of hysteria has never been satisfactorily explained. For a long time it was thought to be in some way related to uterine disturbances. But while it is not denied that sexual disorders may have a bearing on the primal cause of the phenomena, still it is also claimed that the ailment attacks both sexes. We have progressed not further than this.

The treatment at best has been attended in most cases with disappointing results. We are confronted with a "loss of due balance between certain of the high functions of the brain, spinal cord and sympathetic system." The treatment obviously should be, then, to restore this balance. Rest is a very essential feature. By rest is meant *restraint* of overaction of certain of the spinal nerve

TO GUARD THE HEART

treatment of Febrile, Nervous and Chronic Diseases, and as a Remedy in Functional Disorders of the Heart and Circulation.

ach Pillet represents one one-redth of a grain of Cactina, the e proximate principle of Cereus diflora (Mexicana).
OSE—1 to 3 pillets.

USE

CACTINA is no longer an experiment. Physiological writers and the medical profession recognize in it the safest heart tonic in many conditions.

CACTINA PILLETS.

Sample mailed free to physicians.

Artificial digestive agents, such as pepsins and pre-digested cs, are temporary expedients. In treating chronic dyspeptics

SENG

eases the secretion of the digestive fluids, relieves congestion of the ous coats of the entire alimentary canal and restores the assimila- processes. Dose—one teaspoonful before meals; the dose before kfast preferably in hot water. Samples to physicians who will express charges.

SULTAN DRUG CO., Manufacturers of Cactina Pillets and Seng, St. Louis.

Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides

WHEN YOU USE

PEACOCK'S BROMIDES

YOU USE THE BEST.

Each fluid drachm, represents 15 grains of the combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium, and Lithium.

Put up in half-pound bottles only. Full size sample to physicians who will pay express charges.

CHIONIA

AN HEPATIC STIMULANT, NOT A CATHARTIC.

(From Chionanthus Virginica.)

Stimulates portal circulation, strengthens the lymphatics, and removes Chronic Constipation and Sluggish Conditions of the Liver by its general tonic action on that organ.

Put up in half-pound bottles only. Full size bottle to any physician who will pay express charges.

PEACOCK CHEMICAL COMPANY, St. Louis.

Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia

centers. My experience has taught me that nothing gives better results than the combined bromides; and these should be of the very purest obtainable. For this reason I have availed my professional self of Peacock's, not only for their purity—freedom from bromates and carbonates so common to the commercial bromides—but on account of their ideal synergic effects and the fact that they are neutral in reaction, which permits of combining certain alkaloids in the solution without fear of danger of precipitation.

In various forms of neurosis I have found Peacock's Bromides invaluable as an all-round agency of alleviation and cure. They have never disappointed me. In obstinate cases of epilepsy, where the treatment is necessarily protracted, I find them particularly useful in that their administration is not followed by the too common symptoms of bromism. And I would specially urge their utility in instances of delirium following alcoholic excesses.

Anything that conserves the vital forces, that does not depress any organ, as for example, the cardiac centre, anything that gives the rest or normal sleep when repair is greater than waste, anything that tends to restore the nervous equilibrium, soothing the exciting centres, whatever they may be, must benefit the entire organism when each separate organ, then, of course, will receive its needful quota of help. And since local treatment is out of the question, I cannot conceive of better procedure, or one more infallible to the successful management of hysterical cases.

MAL-ASSIMILATION.—I have prescribed Seng for indigestion and mal-assimilation and find the improvement marked from the beginning of its administration. I have prescribed it very successfully in a number of cases. Whenever I meet the two above conditions I never failed to use it.

J. H. LAWRENCE, M. D.,
Smithfield, Va.

HAGEE'S CORDIAL of Cod Liver Oil with Hypophosphites of Lime and Soda is the remedy for Grippe. It re-

"RIVER CREST,"

(UNDER STATE LICENSE.)

ASTORIA, L. I., **NEW YORK CITY.**



FOR MENTAL AND NERVOUS DISEASES.

Separate detached building for **Alcoholic** and **Drug Habitues.** Splendid location. Overlooks East River and the City. Address **J. JOS. KINDRED, M. D., Physician-in-Charge.** City Office, 1125 Madison Avenue Cor. 84th Street, 2 o p. m. daily. Sanitarium telephone, 36 Astoria.

The Richard Gundry Home,

CATONSVILLE, BALTIMORE CO., MD.

A private Home for the treatment of Mental and Nervous Diseases, Opium and Alcoholic addictions. For Circulars, Rates, etc., Address,

DR. RICHARD F. GRUNDY, Catonsville, Md.

References—Dr. Henry M. Hurd, Dr. Wm. Osler, Johns Hopkins Hospital, Baltimore, Md. Dr. Thomas A. Ashby, Dr. Francis T. Miles and Dr. Geo. Preston, Baltimore, Md. Dr. George H. Rohe, Sykesville, Md. Dr. Charles H. Hughes, St. Louis.

THE BLUE HILLS SANITARIUM MILTON, MASSACHUSETTS.

A PRIVATE HOSPITAL AND IDEAL RESORT.

All classes of patients admitted. Separate department for the victims of ALCOHOL, OPIUM, COCAINE AND OTHER DRUG HABITS.

All desire for liquors or the baneful drugs overcome within three days after entrance, and without hardship or suffering.

A well-equipped Gymnasium, with competent Instructors and Masseurs, for the administration of purely hygienic treatment; also a Ten-plate Static Electrical Machine, with X-Ray, and all the various attachments.

J. FRANK PERRY, M. D., Supt., 2 Park Square, Boston, Mass.

DR. WM. B. FLETCHER'S SANATORIUM.

For treatment of Nervous and Mental Diseases. Special treatment of Diseases of Women by DR. MARY A. SPINK.

218 N. ALABAMA ST., - - - INDIANAPOLIS, IND.

THE ALPHA SANITARIUM,

LAKE FOREST, ILLS.

Established for the treatment of the Functional Derangements and Morbid Psychologies that occur during Adolescence.

For further particulars address

W. XAVIER SUDDUTH, M. D., 100 State St., CHICAGO.

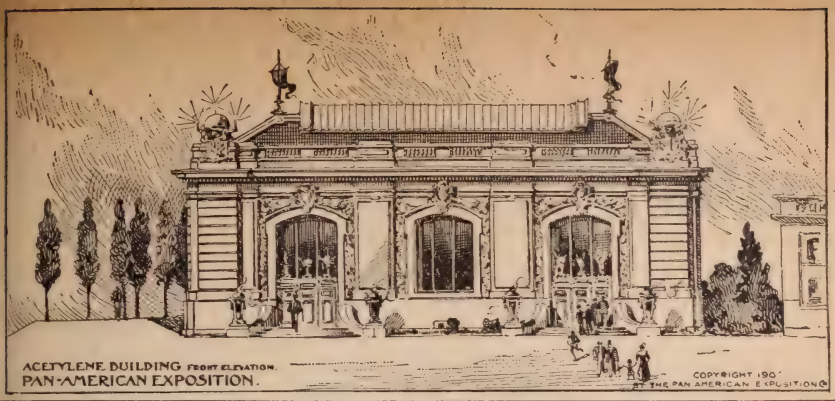
Mention this Journal when writing to Advertisers.

stores health, and has the further effect of curing the disagreeable post-grippal symptoms so often seen. Thus, night sweats, loss of weight, and the entire train of nervous symptoms, such as intestinal neuralgia, headache, brain fag, eye strain, etc., quickly yield to its action. It is pleasant to take, efficient in action, and a great builder of all the tissues.

CARBUNCLES.—Creel has relied on Ecthol given internally, in doses of a teaspoonful, in cases of carbuncle, flax-seed poultices applied locally, emptying of pus, scraping out of dead tissue and cleansing with peroxide of hydrogen; after this a topic application of Ecthol or absorbent cotton every hour to eight hours. The average duration of this treatment in his cases was ten days.—*Journal American Medical Association.*

NEW REMEDIES.—Probably no other remedy has been appreciated and become popular by and with the medical profession in such a short time, as "Borobenphene" and "Glycobenphene," manufacutured by the old and reliable firm Henry Heil Chemical Co., of this city. This firm has built up, in the course of a generation, a reputation for furnishing only high grade goods, and fully guarantees every article it sells. We therefore take pleasure in calling the attention of those physicians, who are not yet using these preparations, to them. If they do not care to prescribe these remedies without having personally tried them, they should avail themselves of the firm's offer to furnish an original bottle of either or both of them gratis. Borobenphene-Heil is a powerful, safe, reliable, non-irritating and pleasant antiseptic. Glycobenphene-Heil is the new remedy for Eczema and kindred skin diseases. If it is not convenient for physicians to call for the samples, they only need to write the firm and they will be promptly sent.

THE PORTRAITS OF OUR PRESIDENTS, with biographical sketches, by General Charles H. Grosvenor; title page



Greenmont-on-the-Hudson.

For NERVOUS and MENTAL DISEASES.

RALPH LYMANS PARSONS, M.D. RALPH WAIT PARSONS, M.D.

ity Office, 21 East 44th St,, SING SING, P. O., N, Y.
ondays and Fridays, 3:30 to 4:30,p.m. Long Distance Tel., Hart, 140A, Sing Sing, N.Y

CREST VIEW SANITARIUM,

GREENWICH, CONN.

quiet refined home for the treatment of

Chronic and Nervous Diseases,

In the midst of beautiful scenery, 28 miles from New York.

H. M. HITCHCOCK, M. D.

FALKIRK.

AMES FRANCIS FERGUSON, M.D. **M. LANGDON BIRD, M.D.**

On the Highlands of the Hudson, near Central Valley, Orange Co., New York. A Home r treatment of nervous and mental diseases, and the alcohol and opium habits.

Falkirk is 800 feet above the sea level; the grounds cover over 200 acres; are well aded and command a magnificent view. The buildings are steam heated and lighted by s, the water supply from pure mountain springs. All the rooms face the southwest, the st methods in sewerage have been followed, and the arrangements for comfort and recrea- n include a sun-room, steam-heated in winter.

Dr. Ferguson may be consulted at his office, 168 Lexington Avenue, New York City, esdays and Fridays, between 11:30 a. m. and 12:30 p. m., and by appointment, or may addressed at Central Valley, Orange County, New York. Long Distance Telephone, Central Valley, New York.''

SANITARIUMS AND DOCTORS

CAN OBTAIN

SPECIAL RATES for CARD ADVERTISEMENTS

We have a few bound copies of the ALIENIST AND NEUROLOGIST on hand. Price, $6.50 Prepaid.

ention this Journal when writing to advertisers.

designed by Tiffany. This Inaugural year, when the public mind is aroused over Presidential questions, is a fitting time to issue General Grosvenor's book. Its sale is already tremendous, and will perhaps exceed that of General Grant's Personal Memoirs.

Every patriotic American desires to read what General Grosvenor has to say of George Washington, Thomas Jefferson, Andrew Jackson, Abraham Lincoln, President McKinley and other Chief Executives of the Nation. Everybody desires to read what General Grosvenor, the staunch old Republican leader in Congress, will say of that staunch old Democrat, Andrew Jackson, the Father of the Democratic Party. General Grosvenor has thrown into his sketch of Jackson all the fire and energy of his nature. The biography of Thomas Jefferson is grand. The biography of Lincoln is as beautiful as a sunrise over the hilltops. General Grosvenor has personally known all the Presidents since the time of James Buchanan. The General's book will therefore contain history which has never before been published, written from his own personal observation of these great men. General Grosvenor has served in Congress for nearly twenty years, and he has served his country in war and in Congress for nearly forty years. The book contains twenty-four large Photogravure Etchings as fine as Steel Plates, printed by hand, on heavy plate paper made especially to order. These 24 Photogravure Etchings are in different tints, and are well worth $2 each. These portraits are made from the Paintings endorsed by the family and near relatives of the Presidents. Two year's time and a fortune have been expended in securing these reproductions. The complete book is well worth $50, but the price has been placed so low that the most humble American citizen can own it. The biographical sketches are printed in large open type in two colors; the work is so beautiful that when people see it they want it. The advance sale is very large. President McKinley was the first subscriber. There is one edition known as The President Edition de Grand Luxe, initial letters hand painted, Portraits hand colored, title page hand illuminated, registered and numbered; subscription

ESTABLISHED 1870.

RIVERVIEW SANITARIUM.

For the private care and treatment of Nervous persons, Mild mental cases. Opium and ect Alcoholics. Thoroughly equipped with modern Electrical and Hydriatic devices, Turkish hs, etc.

Arrangement for the reception of patients can be made any hour of the day or night by ns of a long distance telephone from any point. Our number is 46-2 Fishkill.

ADDRESS P. O. BOX, 694.

V S. WHITWELL, M.D. FISH-KILL-ON-HUDSON, NEW YORK.

THE WESTPORT SANITARIUM,

WESTPORT, CONN.

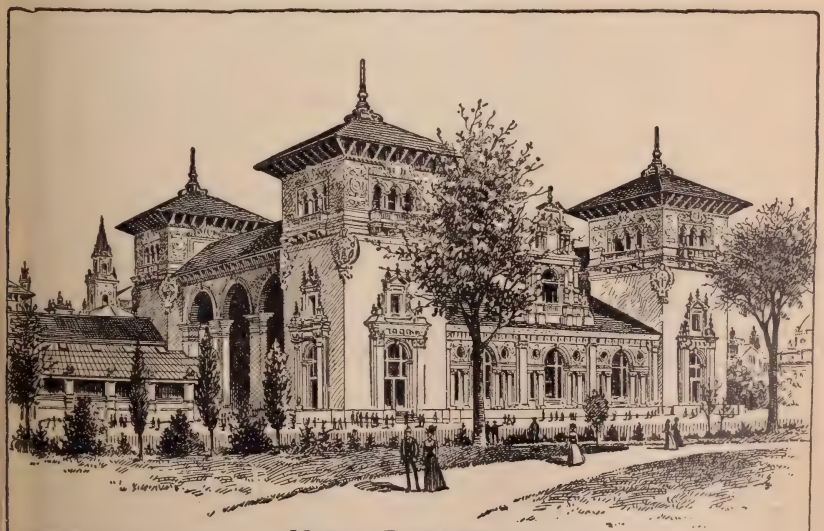
A Private Institution for the Care of Mental and Nervous Diseases.

Pleasantly Situated. Extensive Grounds. Fifty Acres.

Beautiful drives, walks and grove of pine trees. Careful Medical supervision, Kind a Reliable attendants. Bowling Alley, Croquet, Tennis and frequent entertainments. Cottage care with private attendants if desired. Terms Moderate. Applications can be me at 979 Lexington Avenue, New York City, (Wednesdays from 10 a. m. to 12:30 p.m.)

Address F. D. RULAND, Medical Supt.,

Telephone D 13. WESTPORT SANITARIUM, WESTPORT, CONN.



COPYRIGHT 1901 BY THE PAN-AMERICAN EXPOSITION CO.

MINES BUILDING
PAN-AMERICAN EXPOSITION.

price, $250. Orders and applications for territory are coming in rapidly. A high class man or woman of good social standing can soon make a small fortune taking orders in this community. Send reference and apply for terms quick, as the territory will be assigned soon. Address, The Continental Press, Corcoran Building, opposite United States Treasury, Washington, D. C.

AN EXPOSITION BOOKLET.—Another beautiful production from the Bureau of Publicity of the Pan-American Exposition at Buffalo, is on our review table. It consists of sixteen pages and a cover in light green. The unique feature of it is the miniature production of the famous poster, "The Spirit of Niagara," which has had a most remarkable demand. The booklet is a popular picture book, the first page having an engraving of the magnificent Electric Tower, which is three hundred and ninety feet high, and which will form the glorious centerpiece of the great Exposition. The center of the booklet shows a birdseye view of the Exposition, and gives one some idea of the great extent of the enterprise upon which $10,000,000 is being expended. The grounds contain three hundred and fifty acres, being half a mile wide, and a mile and a quarter long. Other pages show horticulture, graphic arts and mines, manufactures and liberal arts, the Music Temple, the Plaza and its beautiful surroundings, the Stradium or athletic field, the agricultural, live stock and ethnology features, and a few of the thirty or forty ingenious and novel exhibits which promise to make the Midway the most wonderful that has ever been prepared for Exposition visitors. The railroads will make low rates from all parts of the country during the Exposition, which opens May 1 and continues six months. Any one desiring a copy of this booklet may have it free by addressing the Pan-American Bureau of Publicity.

YOU MUST BE AWARE that in Herpes Zoster, all so-called ointments, paints etc., are not of the slightest use, and that the disease runs its painful course in spite of treatment internal or external. Having a severe case of

CHLORETONE

HYPNOTIC
LOCAL ANESTHETIC
ANTISEPTIC

Physicians have made favorable reports of its use in Insomnia, Epilepsy, Asthma, Nausea of Pregnancy and Anesthesia, Seasickness, Chorea, Alcoholism, Headache, etc., etc.

In minor surgery and dentistry it has many advantages over cocaine and the like, in that it is markedly antiseptic as well as anesthetic, and does not depress the heart.

We supply Chloretone in 3- and 5-gr. Sugar-coated Tablets, in bottles of 100; also in crystals in ounce and half-ounce vials.

Sample and literature sent free on application.

Parke, Davis & Co.,

Home Offices and Laboratories,

Branches in New York, Kansas City, Baltimore, New Orleans, and Montreal, Quebec.

DETROIT, MICHIGAN.

Branch Laboratories:

LONDON, ENG., AND WALKERVILLE, ONT.

Herpes where the chest, back and arm was affected, and the patient's pain unbearable, and knowing the value of Ecthol, I ventured to give it a trial. I applied Ecthol on pieces of lint, and strange to relate within twenty-four hours, the pain had mostly subsided and the pustules had quite a shriveled appearance. This was the third or fourth day of the disease. The patient made a painless recovery thenceforth. I am giving it extensive trials now in all cases where there is any pus. D. P. SETHNA, L. M. and S.,

111 Gorgaum Road, Chandarnwady, Bombay.

Bombay, Dec. 23rd, 1900.

THE LIGHT OF THE WORLD, or Our Saviour in Art costs nearly $100,000 to publish. Contains nearly one hundred full page engravings copied direct from the World's Greatest Paintings of our Saviour and His mother. Contains History of Painting, Biography of Painter, and the Galleries in Europe where the Original Painting may be seen. The most beautiful publication ever issued. The strongest hearts weep at the sight of these wonderful pictures of Jesus and His Mother. Everybody says they are grand, sublime, matchless, magnificent, beautiful, inspiring and uplifting. The sale is unprecedented. The presses are running day and night to fill the orders. Twelve carloads of paper were required for the last edition. Small fortunes are being made by the thrifty with this marvelous work. Contains also a childs story beautifully written to fit each picture. This wonderful book, matchless in its purity and beauty, appeals to every mother's heart and in every Christian home, where there are children it sells itself. A Christian man or woman can soon clear one thousand dollars ($1,000) taking orders in this community. Others are doing this. Why not you? We are advertising in nearly ten thousand newspapers in this country, Canada, England, and Australia. Shipping books to every English-speaking country in the world. We shall promote our best workers to positions of State Managers, Correspondents and Office Assistants. We also own and publish large Photo-gravure Etchings of the great paintings in the Galleries of

BELLEVUE PLACE SANITARIUM



35 Miles from Chicago.

Established by **DR. R. J. PATTERSON** in 1867.

for the treatment of

NERVOUS AND MENTAL DISEASES OF WOMEN.

A massive stone structure with spacious rooms, electric light and steam heat, large greenhouses, extensive grounds and beautiful country drives. Private and retired, with home comforts, restful surroundings and skillful medical treatment. **Terms moderate.** Address for circular,

F. H. DANIELS, M. D., or BELLEVUE PLACE CO.,
BATAVIA, ILL.

OAK GROVE HOSPITAL

For Nervous and Mental Diseases.



Grounds comprise sixty acres of stately oaks, and are picturesque and secluded. Buildings roomy, homelike, free from nstitutional features, and erected with especial reference to the care of nervous and mental invalids.

Interiors Bright and Cheerful. Luxurious Furnishings, Superior Appointments, Skilled Attendance, First-class Cuisine.





Equipment for hydrotherapeutic and electric treatment complete and modern—Static, Galvanic and Faradic Apparatus, Electric Bath, Turkish and Russian Baths and Massage.

Noyes Amusement Hall in connection with the Hospital, containing gymnasium, billiard room, bowling alley, hall for assemblies, sitting room, singing room and library, furnishes ideal facilities for indoor sports and diversion. Carriages for the daily use of patients free. For terms, address

DR. C. B. BURR, Medical Director. FLINT, MICH.

Europe. One or more of these Etchings can be sold in every home. By carrying the book and the engravings your success will be tremendous. Mrs. Waite, of Worcester, Mass., has sold nearly four thousand dollars worth of books there. Mrs. Sackett has sold nearly two thousand dollars worth of books in New York. Both of these ladies answered our advertisement, and had never sold a book before. Took fourteen orders first two days—H. Colwell. Took five orders first day; twenty-three orders first week, clearing over $50—Hattie Lemwell. Thousands of others like above. It is printed on velvet-finished paper; bound in Cardinal Red, Green and Gold and adorned with Golden Roses and Lilies. Write quickly for terms as the territory is going rapidly. When you prove your success, we will promote you to the position of Manager and Correspondent under yearly contract. We shall soon move into our new and elegant structure to be occupied solely by us, and to be known as the Light of the World Building. Address, The British-American Co., Corcoran Building, opposite United States Treasury, Washington, D. C.

THE WORK OF PATRIOTIC SOCIETIES.—The Wallace House of Somerville, is made the subject of an illustrated article in the April number of *The Delineator*. It shows photographs of the interior and exterior as restored. It demonstrates the valuable work done by patriotic societies in saving from further destruction a house and its contents that were memorable in Revolutionary times.

NINE HUNDRED DOLLARS yearly to Christian man or woman to look after our growing business in this and adjoining counties, to act as Manager and Correspondent; work can be done at your home. Enclose self-addressed, stamped envelope for particulars to J. A. Knight, General Manager, Corcoran Building, opposite United States Treasury, Washington, D. C.

MADAME GRUND'S APHOISMS.—Madame Sarah Grund lately consented to talk on the Art of Happiness. Some o her aphorisms are worth keeping.

The David B. Crockett Company.

Manufacturers of

INE VARNISH SPECIALTIES.

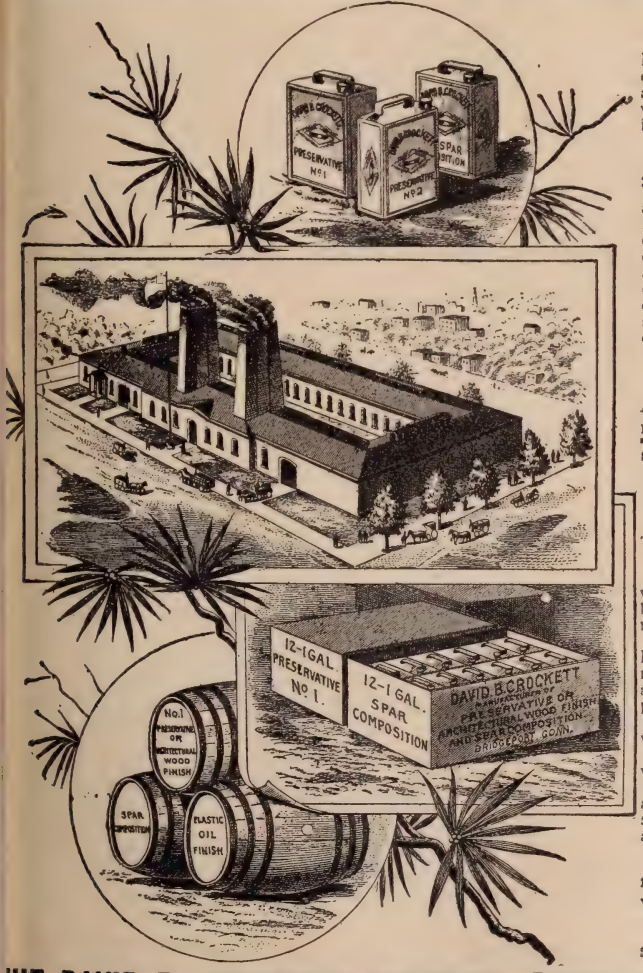
Leaders in our line during thirty years past.



ive Practical Reasons why Architects, Builders, overnment and State Institutions should use

THE DAVID B. CROCKET CO.'S PRESERVATIVE:

t.—It develops and preserves the different kinds of wool in their natural beauty.
l.— It is not affected by hot or cold water.
l.— Will not crack, blister or turn white.
h.—Its surface is not impaired by contact with soap, grease, or by the ammonia generated in Bath Rooms, Stables, Hospitals, or other public buildings.
5th.—As a finish in Dining Rooms, Kitchens, Hallways, Bath Rooms and Interiors of Railway Cars, over grained work or on hard wood it is superior to any article in use. Nothing else will stand on Refrigerators.



Water Proof Floor Finish

For Interior Floors, Oil Cloths, or Linoleums. Can be rubbed and left with an egg shell gloss, whi h is superior to wax finishing and costs less.

Bath Room Finish.

A new specialty for varnishing Toilet, Bath, Engine, Refrigerator, and Store Rooms. Boat Houses, Yacht Cabins and Saloons, Breweries, Stables, Laboratories, Kitchens, Pantries and Water Closets. Not affected by frequent contact with chemical gases, immersion in salt water, or washing with hot or cold water and soap.

Five Practical Reasons Why

Architects, Builders, Government and State Institutions should use the David B. Crockett Co.'s.

Spar Composition:

The only genuine article of its kind in the market.

1st.—As a finish on exterior wookwork on Yachts, Steamboats and Railway Cars it has no equal.

2d.—On Front or Vestibule Doors, over grained work or on natural woods, it will outwear all other materials used for such purposes.

3d.—It will not crack, turn white or blister.

4th.—It will stand washing with hot or cold water and soap

5th.—The extreme toughness and durability of Spar Composition make it superior to any article of the kind ever offered.

All our goods can be rubbed and polished or left with an egg shell gloss.

If local dealers cannot supply you, send direct to

THE DAVID B. CROCKETT COMPANY,

Bridgeport, Conn., U.S.A.,

Our "Architectural Hand Book," giving prices and full articulars, sent free on application.

SAMUEL SWAN, President.
W. B. LENT, Vice-President.
CHAS. P. TOWNER, Sec. & Treas.

Mention this Journal when writing to Advertisers.

There are minor pleasures whose effect is accumulative, and which make up a happy life.

Even in choosing to be miserable we are happy, since there is happiness in every act of choice.

Amongst women the desire to work is not so common that it should be discouraged.

There is a great deal of difference between a copy and an imitation.

The misery children make for their parents is well known; the misery parents make for their children not so well.

The two great sources of happiness are health of body and strength of mind.

In recipes for happiness goodness must always be the principal ingredient.

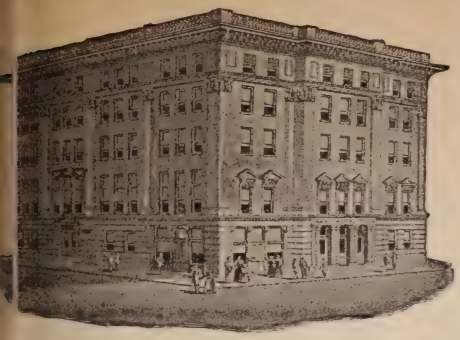
When people begin to be critical they cease to be pleasant.—*The Saturday Evening Post.*

SUCCESS published by McGraw Marden & Co., New York, $1.00 per annum, contains a sketch of the early life of the present Governor of New York, Mr. Odell, which will be of interest to all classes of readers.

AS IN MACHINERY we must first repair the little wheel, out of gear, so in society we must first study the criminals crank, insane, or pauper who can seriously injure both individual and community. Thus a worthless crank by killing a prominent citizen can paralyze the community. The injury from such action is often beyond calculation. Our government pays out millions to catch, try, and care for criminals, but gives very little to study the causes that lead to crime.

The study of man, to be of most utility, must be directed *first* to the *causes* of crime, pauperism, and other forms of abnormality. To do this the individuals themselves must be studied. As the seeds of evil are usually sown in childhood and youth, it is here that all investigation should commence, for there is little hope of making the world better if we do not seek the causes of social evils at their beginnings.—*Dr. MacDonald's Appendix to a Psycho-physical Study of Zola.*

ARNES MEDICAL COLLEGE, City of St. Louis, Mo.



BOARD OF TRUSTEES.

JOHN D. VINCIL, D. D., President,
Grand Secretary Masonic Grand Lodge of Missouri.
JOHN C. WILKINSON, Vice-President,
Hargadine-McKittrick Dry Goods Co.
GEO. A. BAKER,
President Continental National Bank.
A. M. CARPENTER, M. D.,
Vice-President of the Faculty.
A. R. KIEFFER, M. D., Assistant Secretary.
WM. T. ANDERSON, Treasurer,
President Merchants Exchange and Director St. Louis National Bank.
J. B. LEGG President Legg Architectural Co.
C. H. HUGHES, M.D., President of the Faculty.
JOHN H. MARMADUKE, Cashier Mexico Savings Bank.
HON. JNO. M. WOOD, ex-Atty., Gen'l. Mo.
PINCKNEY FRENCH, M. D., Secretary.

FACULTY.

of . H. Hughes, M. D., Pres.
has. R. Oatman, M. D.
'. C. Day, M. D.
no. H. Duncan, M. D.
dwin R. Meng, M. D.
.. D. Jones, M. D.
T. Jelks, M. D.

Prof. A. M. Carpenter, Vice-Pres.
" S. C. Martin, M. D.
" W. L. Dickerson, M. D.
" G. M. Phillips, M. D.
" F. L. Henderson, M. D.
" A. R. Kelffer, M. D.
" J. H. Tanquary, M. D.
" Jno. W. Vaughan, M. D.

Prof. C. M. Riley, M. D.
" A. W. Fleming, M. D.
" R. C. Blackmer M. D.
" C. H. Powell, M. D.
" M. Dwight Jennings, M. D.
" J. Leland Boogher, M. D.
" Pinckney French, M.D., Secretary.

A FOUR-YEARS' GRADED COURSE OF INSTRUCTION.

S son of 1899-1900 commences September 11th, and continues seven months. Instruction, especially ct l: new and spacious building, located in the heart of the city and within five blocks of the new station: de in all appointments; ample clinical and laboratory facilities; course of study conforms to the require- nt f all health boards: tuition moderate: ho pital and dispensary privileges free. Special terms to sons and th: of physicians, sons of the clergy and graduates of pharmacy and dentistry. For announcement or or tion, address

BARNES MEDICAL COLLEGE, ST. LOUIS, MO.



Mayfield... Sanitarium,

ST. LOUIS, MO.

This Institution has the Best of modern improvements.

Is built of best quality buff Roman Pressed Brick in Italian Renaissance.

Large and well lighted rooms, broad verandas, non-absorbent operating rooms, aseptic walls, hydraulic elevators, heated with hot water and lighted with electricity. Complete telephone system, shower and massage baths, Swedish movements. Electrical treatment of all kinds. CUISINE UNEXCELLED.

Under strictly REGULAR management. Staff of Physicians of high standing in the pro-
si For further information, address,

es of Women a Specialty.
Surgical Department with Latest liances.
Specially Trained in the care of erent Specialties.

W. H. MAYFIELD, M. D.

912 Taylor Avenue,

ST. LOUIS, MO.

COLLIER'S WEEKLY is an illustrated magazine of sterling worth. The illustrations of the current events in the world's history are the best that come to our table and are well worth the small subscription of $5.20 per annum.

A NATIONAL PARK at Valley Forge.—Through the efforts of the patriotic societies a bill has been introduced in Congress providing for an appropriation of $200,000 for the purchase and preservation of Valley Forge where Washington and his army encamped in those uncertain and terrible days which preceded the victories that led to American independence. Fortunately this region has not yet been despoiled by the changes of modern life. It is a beautiful piece of country with glorious hills, splendid forests and all those variations of topography which will make a perfect pleasuring ground for the people. In addition, the historic points are well preserved, and many of the defenses constructed by Washington's heroes still remain. Students of history often spend days traversing the country following the footsteps of the patriots.

It is held—and rightly so—that winter at Valley Forge was a crucial period of the fight for freedom; that it led to the battles of Trenton and Princeton, which changed the ill fortunes of the war, and that to-day it is one of the sacred spots of American territory. The new park will consist of about a thousand acres, and the ultimate success of the efforts of the patriotic societies seems to be certain.—*The Saturday Evening Post.*

THE SATURDAY EVENING POST founded by Benj. Franklin will be found to contain many items of general interest for old as well as young.

THE PAN-AMERICAN EXPOSITION, at Buffalo, N. Y., May 1 to Nov. 1, 1901, will surpass all former enterprises in six important features: (First) In elaborate and beautiful electric lighting effects, using over 200,000 lamps: (Second) in the splendor of its hydraulic and fountain



WHY NOT, DOCTOR?

Why not give your patients the **best chance** for complete and permanent recovery by referring them to

The Alma Sanitarium

A Health Home for men and women to live comfortably in, to get well in, to tell their friends about.

Our only "fad" is **scientific diagnosis** and **treatment.** Discount to physicians. Write for booklet and full information.

The Alma Sanitarium Company,
ALMA, MICH.

GEORGE F. BUTLER, M. D.,
Medical Superintendent.

effects, a stately canal over a mile long encircling the buildings and all courts having water features of unparalleled beauty; (third) in exquisite horticultural and floral embellishments, a wall of foliage surrounding the Expionosit, rare plants and brilliant flowers adorning the grounds; (fourth) in original statuary and plastic ornamentation—more than one hundred and twenty-five large groups of American sculpture; (fifth) in the richness of its color decorations, all buildings to be tinted in beautiful and harmonious shades; (sixth) in the magnificence of its court settings, the court area being much larger than at any former exposition, producing vistas of exceptional grandeur. Cost of preparing Exposition buildings and grounds, including Midway, about $10,000,000. Proposes, to celebrate achievements of the western hemisphere during one hundred years; to promote trade among Pan-American countries; to present a great object lesson showing progress of the western world to date. All the leading Pan-American countries will participate. Site, three hundred and fifty acres in northern part of Buffalo; twenty minutes' ride from center of city; electric railways on three sides; twenty-six steam railways have access to Exposition station. Architectural features, twenty large buildings, a free adaptation of the Spanish Renaissance, by way of compliment to Latin-America. Albright Gallery of Art, costing over $30,000, and New York State Building, costing $150,000, of white marble, fire-proof, in the style of ancient Greek temples. Electricity, grandest electrical exposition ever held. Beautiful electric tower for display, three hundred and seventy-five feet high; five thousand horse-power transmitted from Niagara Falls, four thousand horse-power developed on the grounds. Government Participation, appropriation $500,000. Exhibits by all departments, including a life-saving station with daily exhibitions; post-office in daily use, light-house in operation, naval and ordnance display, fish in aquariums, weather signal station in operation, displays by the mint; special exhibits from the Hawaiian and Philippine Islands, Tutuila, Guam, Porto Rico and Cuba. Special features, stadium for sports, seat-



WE WANT YOU

to investigate these machines. We believe it will be to your interest, because a GOOD STATIC MACHINE becomes an investment, yielding a definite and increasing dividend greater, generally, than any other apparatus.

Our business is to construct PERFECT MACHINES that produce definite and satisfactory results ALWAYS.

WATCH OUT FOR BREAKERS!

We are the ONLY house manufacturing the GENUINE IMPROVED ATKINSON TÖPLER-HOLTZ MACHINES. There are several imitations, which claim to be just as good, but the manufacturers cannot support their claims.

Every machine we have sold is a dividend-producing investment. If you desire to know more about them, let us know and we will correspond with you and send you, WITHOUT CHARGE, our large Illustrated Catalogue.

McIntosh Battery & Optical Co., 521-531 WABASH AVENUE, CHICAGO, ILLS.

INTERPINES,

GOSHEN, NEW YORK.

A beautiful, quiet, restful **HOME**, for the care and treatment of the Nervous and Mental Invalid. Under State License, voluntary and committed cases received.

CITY OFFICE:
3 W. 85th St., NEW YORK.

Mondays and Thursdays,
1 to 3 p.m., by appointment.

F. W. SEWARD, M.D.

ANADOL

ANALGESIC & ANTIPYRETIC.

Is useful in *La Grippe, Sciatica, Rheumatism, Neuralgia, Hemicrania* and allied affections. It reduces temperature and relieves pain, without the usual disagreeable after-effects. PRICE Per lb., $3.50; 1000 Tabs (5 gr.) $4.00.

Wheeler Chemical Works, 137 Lake Street, CHICAGO, ILLS.

Patterson Home Sanitarium

Morphine & Liquor Habits

A Specialty. **Morphine** habit cured without sickness or suffering. **Liquor** habit cured with only one week detention from business; mild cases none. Booklet free, giving particulars. Citizens Phone 1291.

C. E. PATTERSON, M. D., Mgr., Grand Rapids, Mich.

ing twelve thousand people. Temple of Music, seating two thousand two hundred. Leading bands of the world engaged for free concerts. Grand fashionable horse show. Exhibits of the Indians of Six Nations. Grandest Midway ever produced, over a mile of new amusements, costing, $2,500,000. Buffalo, four hundred thousand population; twenty-six railways, two hundred and fifty passenger trains daily; two hundred and twenty-five miles of asphalt streets; thirty minutes' ride from Niagara Falls; coolest city in summer in the United States. Low rates on all railways during the Exposition. For further information address: Pan-American Bureau of Publicity.

MOTHER GOOSE as Modified by Alcohol.—Under the caption of Mother Goose Up to Date, they sing this nursery song:

"Sing a song of penitence, a fellow full of rye;
Four and twenty serpents dancing in the eye;
When his eye was opened he shouted for his life;
Wasn't he a pretty chump to go before his wife?
His hat was in the parlor, underneath a chair,
His boots were in the hallway, his coat was on the stair;
His trousers in the kitchen, his collar on the shelf
But he hasn't any notion where he was himself;
When the morn was breaking someone heard him call;
His head was in the ice-box, which was the best of all."

—*The Western Druggists' Exchange.*

Who will say after this that alcohol does not poison and paralyze the psychic centers?

MR. ZANGWILL'S MEMORY.—His Vivid Recollection of the Neuralgia of Miss Agnes Repplier.—Miss Agnes Repplier and Mr. I. Zangwill have met for the second time. Miss Repplier knows very well the conditions under which they first met, but it seems Mr. Zangwill does not. And thereby hangs a story which, told in Miss Repplier's delightful way, is a choice bit of literary gossip.

The first meeting was at a small dinner party. The second was at a large reception given in honor of Mr. Zangwill.

KENSETT

NORWALK, CONN.

For the treatment of Insanity and Nervous diseases, Alcoholic and Narcotic Habitues.

Wednesdays 2:30 to 4:15 P. M.,
12 East 47th Street.
NEW YORK CITY.

ADDRESS:
EDWIN EVERETT SMITH,
SOUTH WILTON, CONN.



Its place in the talking machine art is at the very top.

Every other machine is successful only to the extent that it imitates or infringes the GRAPHOPHONE.

The only practical processes for recording and reproducing sound are covered by Graphophone patents.

A comparison shows that no other talking machine approaches the perfection reached by the Graphophone in recording and reproducing music, song, speech or any sound. No one should be deceived by plausible representations to the contrary, but decide for himself by making a fair comparison.

The Graphophone **is without a rival for home entertainment. For the home is sold from $5.00 up.**

The Graphophone Grand, The crowning wonder of the art, reproduces with full volume and marvelous perfection of tone. Can be heard s far and farther than the strongest voice will carry sound.

Write or call . **Columbia Phonograph Co.,** 720-722 Olive Street, ST. LOUIS, MO.

Does Your Advertising Pay?

——IF NOT——

Consult Us, and We Will Make It Pay.

The information possessed by us covers all mediums, and when an advertisement is placed with us RESULTS are obtained.

We write advertisements that attract attention. Terms reasonable.

St. Louis Advertising Agency,

Mention this Journal when writing to advertisers.

ST. LOUIS, MO.

The author of The Children of the Ghetto was surrounded by a worshipful circle of women. Miss Repplier approached and some one mentioned her name. Mr. Zangwill sprang forward and in his strident voice said how glad he was to see her again. He took her by both hands, shook them warmly, beamed upon her and said he was so glad to have the pleasure of meeting her again; he remembered so perfectly how ill she was the last time he had met her; she was such a sufferer from neuralgia and the pain was intense that night. Was she better now? She replied that she felt very well indeed, and that she was most happy to see him again.

Then the buzz began. "What a genius he is!" they said. "Think of his remembering that she had neuralgia when he last met her! Isn't he truly wonderful?" And so on and so until Miss Repplier was fairly besieged with exclamations about the lion's wonderful memory.

"Now, here is where I grow remarkable," says Miss Repplier; "I never breathed it aloud to one person in that worshipful crowd that I never, *never* had a twinge of neuralgia in my life, and that I was buoyantly well on the night on which I met Mr. Zangwill.—*Saturday Evening Post.*

TURKISH CENSORSHIP.—Rules that govern all Publications in the Sultan's Domain.—An official private circular was issued to the Turkish newspapers several years ago as follows:

"Article III.—Do not publish scientific or literary articles too long for completion in a single issue. Avoid the notice 'To be continued,' which causes an uncomfortable tension of the mind.

"Article IV.—Avoid blank spaces and suggestive dots in the body of an article. They tend to raise suppositions, and to disturb the tranquility of the reader's mind, as has lately been seen in the case of The Levant Herald.

"Article V.—Avoid personalities. If any one comes and tells you that a Governor or a Deputy Governor has been guilty of embezzlement, maladministration or any other blameful conduct, treat the charge as not proved, and say nothing about it.

PRIVATE HOME AND SCHOOL FOR

Nervous and Backward Children and Adults.

Delightfully located in the midst of 130 acres.

GODFREY, ILL.,



One hour's ride on the C. & A. from St. Louis, eight minutes' walk from station. 350 feet above Mississippi river. Individual training and treatment for a limited number. Seventeen years' experience in Lincoln, Ill. and Elwyn, Penn. State Institutions for the Feeble-Minded. Separate cottage of 20 rooms for boys' Home training. Owing to recent improvements, can accept a few more suitable cases.

References with terms on application.

W. H. C. SMITH, M. D.,

Consultations held in St. Louis or elsewhere by appointment. **Superintendent.**

THE MEDICO-LEGAL JOURNAL.

This Journal is devoted to the Science of Medical Jurisprudence—is edited by CLARK BELL, ESQ., with a corps of able associates, and published quarterly at $3.00 per annum. Each volume has a full and complete Index, and when bound forms a valuable addition to the Library of any Lawyer or Medical Man.

The Journal is illustrated with portraits of eminent men of Bench, Bar, Alienists, Scientists, and Medical Men—A new feature has been the publication of Sketches of the Supreme Court of the States and Provinces of North America.—Embellished with portraits of the Judiciary.

The States of Alabama, Kansas, Oregan, New Jersey, the Province of New Brunswick, Pennsylvania, Delaware and Connecticut have already appeared. Those of Rhode Island, Minnesota, Ohio, Massachusetts, Maine, Michigan and North Carolina will shortly follow and be continued until all the States and Provinces are published.

The Sketches, when complete, will be collected in a volume which will be of great interest to the Legal Profession.

The Portraits of the Chief and Associate Judges of each State will appear, and Portraits of early members of the Supreme Court of each State. Each number of the JOURNAL will contain hereafter at least one State and contributed sketches of that court and photographs for reproduction.

Lawyers and Judges Throughout the Union are Invited to Subscribe.

These volumes will contain a historical sketch of the Supreme Court of each State, written by or under the supervision of the Chief Justice of the Court, or some member of the Supreme Bench, or prominent men selected for that purpose.

Address,

MEDICO-LEGAL JOURNAL,

NO. 39 BROADWAY. - NEW YORK CITY.

"Article VI.—You are forbidden to publish the petitions in which individuals or associates complain of acts of misgovernment, and call the Sultan's attention to them.

"Article VII.—You are absolutely forbidden to publish a word about attempts on the lives of foreign sovereigns, or acts of sedition in foreign countries, for it is not good that such things should be made known to our loyal and peaceable populations.

"Article VIII.—You must not mention these regulations in the columns of your journal, because they might provoke criticism or draw unpleasant observations from ill-conditioned minds."—*The New Lippincotts.*

THE SCIENTIFIC HUMORIST—Of *The St. Louis Star*, that shines so brilliantly for all the people six evenings in the week and every Sunday morning, has judiciously selected the following prophylactic warning poem appropriate to the season from another brilliant meteor of the Pan-American Exposition City, The Buffalo Express, which we give to our readers as a suitable spring-time warning versified as well as a bit of wit. This is the time when fool killers abound and Sanitary fools should get out of their way, the pneumococci, the tubercle and la grippe bacilli are looking for them.

Oh, think of the microbes, the dear little microbes,
Who've slept through the winter, all covered with snow—
How glad they must be that the springtime is coming
How cheerfully now to their work they will go!

The man whose light overcoat's still at his uncle's
And who thinks that his winter coat's too hot to wear—
How gladly the microbes will rush to infect him
As he walks home at night through the chill evening air!

The man who wore flannels since early November
And casts them off now at the first breath of spring—
Ah, he is the fellow the microbes are after
And with his constitution they won't do a thing!

The man who rides home on the back of a street car
While the lake breezes blow down the back of his neck—

BURN BRAE



A PRIVATE HOSPITAL FOR MENTAL AND NERVOUS DISEASES

Founded by the late Robert A. Given, M. D., in 1859.

Extensive and beautiful grounds. Perfect privacy.
Located a few miles west of Philadelphia.

REFERENCES

Doctors H. C. Wood, Pepper, Stillé, Penrose, DaCosta, Mills, Tyson, Turnbull, Osler, Wharton Sinkler.

RESIDENT PHYSICIANS: J. Willoughby Phillips, M.D.
S. A. Mercer Given, M.D.
Dr. Barton Cooke Hurst,
Dr. John Ouchtelony.

For full information address

BURN BRAE
Clifton Heights, Delaware Co., Pa.

THE SANATORIUM

HUDSON, WIS.

EIGHTEEN MILES EAST OF ST PAUL.



An Institution fully equipped with every appliance and convenience for the care and treatment of the Invalid and Sick, as Electric Apparatus, every kind of Bath; Massage, Swedish Movement, etc.

Contagious diseases and the violent or disagreeable insane not received.

Beautiful surroundings and in a healthy locality.

For information address

THE SANATORIUM.

WHEELER'S TISSUE PHOSPHATES.

Wheeler's Compound Elixir of Phosphates and Calisaya.—A Nerve Food and Nutritive Tonic for the treatment of Consumption, Bronchitis, Scrofula, and all forms of Nervous Debility. This elegant preparation combines in an agreeable Aromatic Cordial, *acceptable to the most irritable conditions of the stomach*, Bone Calcium Phosphate $Ca_2\ 2PO_4$. Sodium Phosphate $Na_2\ HPO_4$, Ferrous Phosphate $Fe\ \ 2PO_4$, Trihydrogen Phosphate $H_3\ PO_4$, and the active principles of Calisaya and Wild Cherry.

The special indication of this combination of Phosphates in Spinal Affections, Caries, Necrosis, Ununited Fractures, Marasmus, Poorly Developed Children, Retarded Dentition, Alcohol, Opium, Tobacco-Habits, Gestation and Lactation to promote Development, etc., and as a *physiological restorative* in Sexual Debility, and all used-up conditions of the Nervous System, should receive the careful attention of good therapeutists.

NOTABLE PROPERTIES. As reliable in Dyspepsia as Quinine in Ague. Secures the largest percentage of Benefit in Consumption and all Wasting Diseases, *by determining the perfect digestion and assimilation of food*. When using it, Cod-Liver oil may be taken without repugnance. It renders success possible in treating chronic diseases of Women and Children, who take it with pleasure for prolonged periods, a factor essential to maintain the good-will of the patient. Being a Tissue Constructive, it is the best *general utility compound* for Tonic Restorative purposes we have, no mischievious effects resulting from exhibiting it in any possible morbid condition of the system.

Phosphates being a *Natural Food Product* no substitute will do their work.

DOSE.—For an adult, one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessertspoonful; from two to seven, one teaspoonful. For infants, from five to twenty drops, according to age.

Prepared at the Chemical Laboratory of T. B. WHEELER, M. D., Montreal, P, Q.

To prevent substitution, put up in pound bottles only and sold by all Druggists at One Dollar.

Read the pamphlet on this subject sent you.

Oh, say! but the microbes will greet him with fervor
And soon they will leave him a physical wreck!

The fellow who thinks that the walks are so dry now
That he can with safety leave overshoes off—
How quickly the microbes will seize him and tease him
With a cold in his head and a sneeze and a cough!

The early porch-lounger, the premature golfer,
The man who stands out on the corner to chin—
They're all of them meat for the gay little microbes
Who will marshal their forces and gather them in!

Then here's to the foolkiller known as the microbe,
The friend of the doctor, the druggist's delight—
It's no use to dodge him, he's got his eye on you
And he'll jump on your neck like a thief in the night!

GRAY'S GLYCERINE TONIC COMP.—As a supporting reconstructive agent in convalescence from influenza no remedy acts so effectively as Gray's Glycerine Tonic Comp. It enables the patient to eat, digest and assimilate food, imparts vitality to the nervous system, restores constitutional vigor so that the system is fortified against the occurrence of complications and sequelæ.

The above statements are based upon the recorded experience of thousands of physicians who invariably employ Gray's Glycerine Tonic Comp. as a routine remedy in epidemic influenza or La Grippe.

ANNOUNCEMENT.—We wish to announce the purchase of *The Stylus* the well-known monthly medical journal edited by Dr. William Porter, of St. Louis. *The Stylus* will be consolidated with the *Interstate Medical Journal*, and the two publications continued under the latter name. Dr. William Porter, editor of *The Stylus*, will be associated with Drs. W. B. Outten, R. B. H. Gradwohl and O. F. Ball, in the editorial management of the *Interstate Medical Journal.*

A DOCTOR AS MAJOR-GENERAL.—Among the names of the sixteen army officers, recently sent to the Senate



St. Louis Baptist Hospital,

DR. C. C. MORRIS, Supt.

N. E. COR. GARRISON & FRANKLIN AVES.,

St. Louis, Mo.





This hospital is open to the medical profession generally, and physicians who bring their patients here are guaranteed every courtesy and the exclusive control of their patients. It has a well equipped Bacteriological and Pathological Laboratory under the supervision of a physician well trained in these branches. *Surgical cases are given special attention* Address all communications to

DR. C. C. MORRIS, Supt.

by the President for promotion in the U. S. regular army, was that of a doctor of medicine. This is noteworthy because the appointment is in the line, and not in the medical staff. * * * * * * * * *

The officer thus distinguished is Dr. Leonard Wood, the well-known military Governor of Cuba. Doctor, or General Wood, is a graduate in medicine of the Harvard Medical School. His distinguished career in Cuba is too familiar to all readers to need to be recalled here. It is sufficient to say that this career has been in both the military and civil service, and not in a medical capacity. We understand, however, that General Wood held the regular army rank of assistant surgeon, and that therefore his promotion by such a great leap has called forth criticism in army circles, in which it is regarded as practically an appointment from civil life to high rank in the regular army. We are not especially concerned here about these caste distinctions, and we see no reason why a medical man should not be thus advanced in a service in which lawyers and business men are sometimes honored with high military rank. General Wood has earned his promotion as clearly as any of the other appointees. It is not unusual for physicians in this country to earn high political positions. They have been members of Congress and Governors of States, and perhaps it is reserved yet for one of them some time to be President. It is highly desirable, in fact, that the profession should be better represented in the civil service of the country, especially in the law-making branches.—*Philadelphia Medical Journal.*

PAN-AMERICAN EMERGENCY HOSPITAL.—For the care of sick at Buffalo. A handsome and well appointed hospital building stands near the west end of the Mall, of which the above is an illustration. Floor area rather than elevation is its prominent feature. Utility was first, in the architect's mind but not utility unadorned as the handsome structure shows. The frontage is 90 feet, the main wing has a depth of 38 feet, the height is one story, except in the center, where it assumes the form of a square tower

Typhoid
La Grippe
Tuberculosis

and all diseases arising from impoverished blood and a depleted physical condition demand the most efficient

NUTRITION

The patient **MUST** have a new and continuous supply of all the vital elements in which the blood is deficient.

Introduce in all such cases **LIVE BLOOD.** All the leading and most successful practitioners to-day are using

BOVININE

It is LIVE, defibrinated arterial blood.
It is preserved by cold process and sterilized.
It retains all the vital and nutritive elements.
It contains 20 per cent of coagulable albumen.
It is a fluid food, pure and simple.
It aids digestion, and is promptly assimilated.
It is to a large extent directly absorbed.
It sustains and stimulates the heart.
It renders cardiac stimulants unnecessary.
It is a powerful aid to all forms of medication.

THE BOVININE CO.,
75 West Houston St., New York.

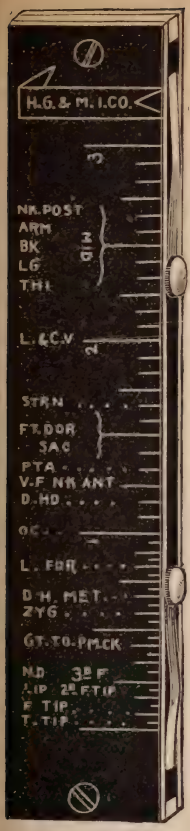
LEEMING, MILES & CO., Sole Agents for the Dominion of Canada.

with a rounded top. Two electrical ambulances, and a steam and gasoline motor ambulance are provided. The building has natural gas for heating and cooking. Water, gas and electricity are in every part of the hospital. Sterilizing apparatus, an apartment for instruments and one for towels and linen are provided. Roswell Park, M. D., Director, Vertner Kenerson, M. D., Deputy Director and Dr. Alexander Allen, resident physician.

THE ARMY AND NAVY HOSPITAL AT HOT SPRINGS. —The Government Army and Navy Hospital at the Hot Springs of Arkansas has been greatly enlarged, and its facilities for the accomodation of patients increased in all directions, and yet, from the indications thus far, the surgeon in charge estimates that the demand for admittance this year will be largely in excess of the possibilities in the accomodation line. And this in despite of the many changes and additions. This has become a most popular place for ailing officers and men of the regular and volunteer armies, as the waters of the Springs seem to be peculiarly well adapted to the relief entirely, or the great alleviation of those ailments which are so likely to seize upon men engaged in active service in semi-tropical regions, as has been the case with the United States Army in the last year or two.

There is probably no other resort in the country which offers so many inducements in the lines that make life worth living while in the search for health. Judging on Pope's idea that "all looks yellow that the jaundiced spy," it is somewhat difficult to make everything agreeable to a sick man, and have him enjoy life while recovering lost or failing health and strength, but if there is any place in this country, or any other for that matter, where this can more certainly be done, than the Hot Springs of Arkansas, it has not been brought to the attention of the recreation and health-seeking public.

The causes that conspire to make this place the greatest health resort in the world, and not only that, but the most noted winter resort in this country, for those well as



HUGHES' AESTHESIOMETER.

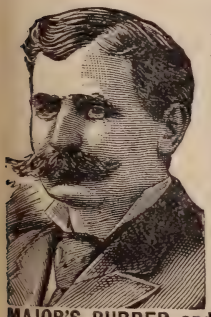


Is the only instrument of the kind which FOLDS UP LIKE A KNIFE, HAS REVERSIBLE SHARP AND BLUNT POINTS, THE ENGLISH AND DECIMAL SCALE AND WEBER'S DISTANT POINTS ENGRAVED ON IT.

PRICE, FIVE DOLLARS.

Address and remit to

EXACT SIZE. **3857 Olive St., St. Louis.** **Dr. C. H. HUGHES.**



Why try to stick things with something that doesn't stick? Buy **MAJOR'S CEMENT;** you know it sticks. Nothing breaks away from it. Stick to **MAJOR'S CEMENT.** Buy once, you will buy forever. There is nothing as good; don't believe the substituter.

MAJOR'S RUBBER and MAJOR'S LEATHER.
Two separate cements—the best. Insist on having them.
ESTABLISHED 1876.
15 and 25 cents per bottle at all druggists.
MAJOR CEMENT CO., NEW YORK CITY.

Clarence H. Hughes. E. C. Duckworth.

HUGHES & COMPANY,

Twentieth Century Printers.

418 N. Third St. ST. LOUIS, MO.

Catalogues and Annual Reports for Hospitals and Colleges a Specialty.

much as for those ailing, are too numerous to enable an accurate inventory of them to be made. The climate is most delightful, the temperature in the winter agreeable, nor does it rise anywhere near that of the country further North in summer, and the various features of the social life there are such as to attract the best people from every direction.

(EDITORIAL.)

WILLIAM R. WARNER, widely known as a manufacturing chemist and caterer to the medical profession and as the first proprietary medicine man who extensively utilized, if he did not invent, the sugar-coated pill, died at Philadelphia April 3. He was a distant relative of George Washington, and his art collection includes over one hundred portraits of the Father of his Country.

(REVIEW.)

DISEASES OF THE NERVOUS SYSTEM, a text book for students and practitioners of medicine, by H. Oppenheim, M. D., professor at the University of Berlin, and translated into English by Edward E. Mayer, A. M., M. D., of Pittsburg, Pa., comes to us through the well-known publishing house of J. B. Lippincott Company, of Philadelphia. It is the first American edition, enlarged and revised from the second German edition, and contains two hundred and ninety-three excellent illustrations. The translator, Dr. Mayer, has done his work well. It is not necessary to go into a detailed description of this estimable book. It is appropriately dedicated to that distinguished master in neurology, Carl Westphal. The author acknowledges his thanks to his able assistants, Cassier and G. Flatau, for the photos and proof-reading.



JAMES G. KIERNAN, M. D.

COLLABORATOR OF THE ALIENIST AND NEUROLOGIST.

Secretary Chicago Academy of Medicine; Distinguished Editor, and Writer on Psychiatry and Neurology, Active and Honorary Member of Many Learned Societies.

DOCTOR JAMES G. KIERNAN

Is known to the medico-psychological, and neurological world by his many able and pertinent contributions to the literature of psychiatry and neuriatry through the pages of the ALIENIST AND NEUROLOGIST.

Doctor Kiernan graduated in medicine at the New York University, served in a medical capacity in the Ward's Island and Cook County Hospitals for the Insane, and has always favored advance and reform in clinical psychiatry. He is a corresponding member of several foreign medical societies, including the French Societé Medico-Psychologiques.

Identified from its foundation with the Chicago Academy of Medicine, that distinguished medical organization owes much to Kiernan's fidelity, enthusiasm and faithfully-bestowed ability and energy.

A clever, jolly, good fellow, well liked by all who have the pleasure of his personal acquaintance, approved and appreciated by the many who know him so well through the literature he has so faithfully enriched, we wish him a long-continued life of usefulness, prosperity and honor.

Editorially, Doctor Kiernan first attracted professional attention by his management of, and contributions to, the *Medical Review* and the *Medical Standard* of Chicago.

The *American Medical Journalist* lately displayed equal appreciation with ourselves of Doctor Kiernan by presenting his face to its readers.

THE
ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, JULY, 1901. No. 3.

THE PHYSICIAN'S DUTIES IN COMMITTING INSANE TO THE HOSPITAL.

By PROF. HOCHE,*
STRASSBURG.

IT is a common fact that physicians in general often regard it a difficult and irksome task when they have to undertake the *treatment of the insane*, and especially their *commitment to an insane hospital.*

There are many reasons for this.

It is in part chargeable to the little personal confidence the physician has in his knowledge of psychiatry, in part aversion for the prescribed legal formalities combined with admission to the hospital and the responsibility entailed upon the maker of the certificate of admission; finally it is due largely to the fact, that the physician, as well as the relatives and the civil officials, have little conception, as a rule, that the hospital shall be *primarily for the cure of a patient* and not merely for the disposal of an inconvenient and troublesome member of society.

The expression "ripe for the insane asylum," which may often be heard from the laity for the designation of a certain grade of mental disease, is very characteristic

*English by Dr. W. Alfred McCorn, Physician in Charge, Grand View Sanitarium, South Windham, Conn.

of the perverse conception prevailing among the educated classes, so called, in this respect, and the physician, who would urge the commitment to a hospital before this state of "ripeness" evident to the laity is manifest in the patient generally has to expect that the relatives will dispense with his advice in the future.

That the local authorities, mayorality, police and district officials, bound by the existing regulations, usually recognize only as sufficient reasons for committing *pauper* insane to the hospital: *danger to the community* or *disturbance of public peace*, and the purpose or possibility of a cure does not enter into the range of their considerations, is not strange so long as the "legislators," the parliamentary representatives and the executive merely deliberate how the public can be protected from the insane asylum, but never as to what has to be done to effect a *cure* in the largest possible number of the insane by *facilitating the conditions of admission* to the hospital. It would be vain to hope that in this respect the alienist's plea alone could effect an improvement; it should be the task of the physician, the general practioner in particular, to overcome the current prejudice as to the nature of mental disorders.

It would be necessary at least that they equip themselves with special knowledge and clear views in regard to psychiatry; a physician, who in cases of mental disease is uncertain in his judgment and vacillating in his orders, is unfitted to contest the large sum of biased opinions and deeply rooted prejudices which he will encounter in the relatives.

Experience teaches that even those physicians, who possess a good knowledge of psychiatry and are able to make correct diagnoses, often display a remarkable perplexity and helplessness when the necessity suddenly arises to send or commit a patient to a hospital; if it were different hospital physicians would not have to report such a large number of instances of peculiar, impractical or false measures in the early treatment, transfer and admission of the insane.

It is true that textbooks as a rule confine themselves to discussing the indications for admission to a hospital according to the different forms of disease and the degree and manner of manifestation of the insanity, but the necessary practical directions before and on commitment are not accurately described. I will try to suppy these defects —for such they are often felt to be—in the following pages; the *duties of the physician* in the *matter of indications, treatment of the insane prior to going to the hospital, their transfer* and especially the *wording* of the *clinical history* (*list of questions, certificate of admission*) destined for the hospital physicians will be briefly gone over.—

The indications for commitment of an insane person to a hospital depend in a certain measure on the external, personal and social conditions of the individual case.

In extremely favorable financial circumstances, when the obtainment of the nurses and the preparation of suitable rooms can be readily arranged, it is oftimes possible to undertake the treatment of cases at home, which otherwise unconditionally require the hospital; these cases, which are extremely rare, will not be considered, but the average conditions of general practice; the well established diagnosis of a mental disorder does not by any means always necessitate commitment to a hospital; a large number of cases on the borderland of the neuroses, *e. g.* mild hysteromelancholia, slow chronic mental disorders without marked affects, cases of general paresis with quiet, slowly progressive dementia, but without anomalies of mood, mild forms of periodical insanity, processes of simple dementia on an organic basis, *e. g.* from vascular changes, etc., may often be just as well treated at home.

In these and many other cases the *indications* are *relative, i. e., every case of mental disease should be sent to a hospital whose prospects of recovery seem better there than under home surroundings;* the knowledge and tact of the family's medical advisor is decisive in the selection of cases.

For the physician, who shares the laity's opinion that the establishment of a mental disease pronounces in a certain measure the individual's civil death sentence, there

are no *relative* indications; whereas the one who knows how high a percentage of recent cases recover in the hospitals for the insane presupposing seasonable admission, finds a gratifying condition; the difference between the prospects of recovery at home and those under hospital treatment are doubtless much greater than for consumptives, on account of which hospital treatment, public or private, is now striven for in large measure.

In his deliberations the physician must remember that the insane hospital represents a sum of factors, which as a rule cannot be procured for the patient at home: quiet, cessation of criticism, nagging, moralizing on the part of injudicious relatives, maintained bed treatment, baths, constant surveillance, medical supervision on the necessary employment of large doses of the narcotics, etc., wholly irrespective of the special, expert mental influence of the alienist; he must furthermore bear in mind that the favorable influence of this advantage of the hospital may be unable to change the prognosis in cases that have become unfavorable by letting them drag along for months with "diversions," change of air," hydrotherapy and vegetarian treatment, that, in a word, the *insane hospital should not be "ultima ratio."* The physician is to-day properly censured, if he lets a case run on and become incurable through non-interference when the operative removal of a tumor might have been necessary and possible in a hospital; yet that the same considerations are applicable to mental disease, we are far from, unfortunately to-day. This much is certain, that on the average the physician who *better cares* for the welfare of his patients in cases of mental disorder *the broader he comprehends the relative indications for commitment to a hospital.*

If we find in the relative indications a wide scope for individual variations, which are due to the character of the patient, his greater or less tractability and affability, we have a very definitely prescribed course in the *indications*, which are termed *absolute*. These include three of the symptom groups occurring in the insane: *danger to the community, suicidal tendency* and *refusal of food.*

The first practically is that which the most readily convinces the relatives and officials of the necessity of institutional care, at any rate usually, according to Kind and Brunner, after the patient has given actual *evidence* of his dangerousness. It generally has a remarkable converting effect on the theoretical views of the people, who are ever crying for further protection against the encroachments of the hospital physicians, when they, perhaps in their own family, have to care for an acutely excited, violent patient for days, whose speedy admission to a hospital is prevented by the formalities alluded to as a measure of protection.

Under all circumstances the physician has not only to keep in mind the evident, but probable danger to the community from a patient according to the form of the disease, and should not be too reserved in the written attestation of its presence, especially so long as on the evidence of danger to the community depends the technical, financial possibility of letting the *pauper* insane share the benefits of hospital treatment.

The "frenzied patient" is not alone "dangerous to the community"; every insane patient with *spontaneous sense deceptions*, every *delirious* person, everyone suffering from any form of *epileptic mental disorder*, every *anxiously excited melancholiac*, all patients with *ideas of persecution, so long as an active affect* is present, are *dangerous to the community*, as well as many cases of general paresis, in whom it consists chiefly in the patient squandering his property and ruining his family's reputation and standing. It is a *fundamental error not* to regard the *suicidal tendency* as one of the conditions of "*danger to the community*"; patients, who will destroy themselves for morbid reasons, are never to be counted on, whether they will not combine *assaults against the life of others*, either *e. g.* in the form of incendiarism or attempted murder; the reports so common in the newspapers of the mother, who, while insane, throws herself into the water with her children, might properly be recognized as sufficient proof of the danger to others from melancholiacs.

Security for those about against the violence of the insane patient at home is often attainable, but only by the employment of restraint, which is unsuited to the character of the disease, so that "*danger to the community*" must under *all circumstances* be regarded an *absolute indication.*

I mention *suicidal tendency* as the *second* absolute indication.

Experience teaches that *actual security of the patient from his intentions against himself is never attainable at home.*

The reasons are various.

Patients of this sort almost always know how to deceive those about as to their intentions; who will believe in the existence of suicidal thoughts only when the patient often speaks of them, will have sad experiences; it may be extremely hard for the physician, *e. g.* in certain cases of melancholia, to convince the relatives that the smiling, talkative patient harbors the most earnest suicidal thoughts and only waits for a brief unguarded moment to put them into execution. In this respect I will never forget one experience; while I tried in vain to make clear to the incredulous and oppositional husband of a melancholic patient the necessity of sending her to the clinic, a terrible outcry suddenly sounded from the adjoining room where the patient was with a nurse, and as we rushed in we found her bleeding profusely from a large gaping wound across the arm she had made with a butcher knife. After such an experience the seriousness of the condition will at least be made clear to the incredulous family, just as after comprehensible evidence of danger to the community.

According to general experience *the difficulty of a constant surveillance* of such patients is always *underrated* by the relatives; under the ordinary household conditions it is almost impossible, technically, to maintain an absolutely constant surveillance day and night, in bed and on the closet, while undressing, etc., which would necessarily require two persons to alternate. It is readily comprehensible that the relatives caring for the patient, intelligence and best intentions presupposed, gradually lose their

energy in keeping up the supervision; even in hospitals for the insane with trained personal attendants new reminders and medical supervision are constantly required to maintain strict vigilance in these matters.

The physician conserves his own interest well in all cases where he presumes a suicidal tendency, and these include all mental disorders attended by depression, particularly melancholia—*to decline all responsibility*, as soon as his advice to take the patient to an insane hospital is not complied with.

As third absolute indication I mention *refusal of food*, the justly dreaded symptom, which either occurs as a component of general opposition to every attention or arises from delusions and sense deceptions, but in every case tends to a deterioration of the general condition with depreciation of the physical strength and also of the mental condition.

In the insane still less than in the sane is gastric nutrition to be replaced by some other method.

Nutritive clysters as a rule are rejected with greater energy by those patients who will not take food for some reason; saline infusions subcutaneously or in the veins may somewhat stay the decline and effect a temporary improvement, but nothing more, and nourishment by fat by injecting oil into the cellular tissue has not as yet passed beyond the hospital walls.

In cases of long refusal of food, particularly when no water is taken and it is a matter of feeble persons, there is nothing else to do but to *feed forcibly* with the stomach tube, as soon as the decline of the physical strength has reached a threatening degree. Under home surroundings in private practice forcible feeding of resistive patients is not practical. For the danger from the operation with respect to pneumonia, phlegmon, etc., not to counteract its benefit, trained assistants are needed to hold the head and possibly the gag; several assistants are essential to overcome the opposition of strong and in many cases extremely resistive patients, in spite of the preceding period of hunger, and the procedure may be such a painful spectacle for

the relatives that forced feeding, if undertaken, is not repeated.

Refusal of food by insane patients should then be the physician's unconditional incentive to demand commitment to a hospital and as quickly as possible.

If the physician is perfectly clear himself and has obtained the necessary consent of the family to commit the patient, the further question of *choice of institution arises.*

For pauper insane the choice of hospital is usually regulated by certain geographical boundaries; the physician now has to encounter the frequent opposition of the local officials, who desire to send the patient to the *cheapest* institution; *for recent cases, curable, asylums and purely custodial institutions* are *not* the proper place; also the wards set apart in the city hospitals of many places, under the patronage of the officials, in which the insane are cared for in unsuitable rooms, without expert management trained in psychiatry, or with the improper employment of restraint, *must not be recommended by conscientious physicians.*

The *nearest* institution is the best when the transfer of a greatly excited patient in a carriage seems the easiest.

However, particularly among people in good circumstances, the question of the personal confidence of the family or physician in this or that hospital may be decisive; mere regard for the prejudice of the laity should have no weight in sending patients to an open "*sanitorium for nervous diseases,*" when they require the treatment of a locked institution, a hospital for the insane; usually it only aggravates the further course of the disease, because the management of these institutions destined for nervous patients usually consider it necessarry to send away excited insane or those with a suicidal tendency, and then the transfer to a hospital for the insane devolves upon the relatives.

What shall be done with the patient until sent to the hospital? Only a few general directions can be given for the large number of contingencies that may arise.

In every case of recent mental disease the *effort* is to be made of *treating* the patient in *bed* at home; surveillance is thus facilitated, strength conserved as much as

possible and in many greatly excited cases quiet is secured; it is often easier than the physician and relatives believe to keep the patient in bed without the use of restraint. When circumstances permit warm *baths* of 26 to 28° R for an hour are to be tried in states of excitement, which are preferable to the administration of narcotics; these, when necessary are the much smaller evil in comparison to mechanical restraint, presuming the physician is in position to frequently observe their action. The employment of restraint in the form of straight-jackets, straps, etc., is not permissible.

The prospect of the existence of a suicidal tendency is to be described in all detail to the relatives by the physician; the removal of the clothing for a bath affords a good opportunity to take all dangerous objects from the patient's pocket.

The anxious depression of melancholiacs is properly relieved by opium and small doses of alcohol in the evening; it would be wrong to withhold the latter remedy from principles of temperance.

In *taking the patient* to the hospital the *attendance of relatives* is to be preferred to that of others; uniform attendants, as *e. g.* the municipal officers often sent in rural districts, should be dispensed with under all circumstances, owing to the similarity with a transfer to prison; strange male attendance for female patients is reprehensible; the employment of the straight-jacket is almost always unnecessary, therefore must never be ordered to dispense with another attendant, and only used with the physician's permission. With patients who very strenuously oppose going to the hospital, several attendants, to show them that any resistance is useless, is to be preferred to the employment of mechanical restraint.

Any false pretences to induce the patient to go to the hospital, as *e. g.* to buy something, make a visit, for a consultation, etc., destroy the patient's confidence in the hospital to which he is brought by subterfuge, makes the hospital physician's treatment of the patient more difficult, and as a rule is unnecessary, for many patients submit

more quietly than their relatives deem possible to the definite, bare statement of the necessity of hospital treatment; many patients go to the hospital more willingly with a physician than with their relatives.

When the transfer is made under medical supervision a freer use of narcotics may be permitted.

In all these half-technical questions the physician must reserve to himself the power to decide; by his training he alone is capable of harmonizing the demands of the special social position of the case and the purely medical requirements with the claims of humanity.

The physician's duties in sending a patient to the hospital are not completed by what has been previously stated; the most responsible duty of *drawing up the certificate* rests on him.

As varied as may be the present legal requirements in the several federal states, which govern the legal conditions for admission to hospitals for the insane, the *foundation* of the whole proceeding, now and then extremely unwieldy and impractical, is always the *medical opinion* of the existence of a mental disorder, and such as with respect to the above expounded points of view, renders treatment in a locked institution necessary.

It is clear in the question of illegal confinement of sane persons, of late so anxiously discussed by the laity and officials, that impediments to admission, referring the petition and other papers to ever so many officials affords no *greater* security against errors, if the fundamental medical opinion is false. Experience teaches that in the cases in which erroneously or from carelessness the existence of mental disease in a sane person is certified to by physicians, are very rare and will become ever more so as the more general a knowledge of psychiatry becomes.

But today the co-operation of the physician does not in any way, on the average, attain the desirable degree is in the *manner of writing* the certificate of admission. But for the alienist's judgment of the patient, who is often brought to him from a distance, the statements of the attending physician are invaluable.

The patient's statements are only rarely reliable; even if we exclude the cases in which obtaining anamnestic facts is impossible owing to clouding of consciousness or states of excitement, anomalies of mood or lack of intelligence, the patient's judgment of his own previous history, the development of his disease, which he only exceptionally recognizes as such, is only rarely material that can be used in forming an opinion.

The *statements of the relatives*, and when they are the nearest, do not always afford sufficient information for the hospital physicians; indifference, forgetfulness, lack of ability to observe, often also the desire "not to let it get out of the family," to cover up existing domestic greivances—all of which render the anamnesis of insanity a far more difficult task than in physical diseases; it may often enough be experienced that facts, which are accidentally learned of in other ways, like suicide of the parents or grandparents, or mental diseases in the nearest relatives, are even denied on direct inquiry.

In all these points, as well as regards the existence of syphilis, the presence of intemperance and the like, which are often regarded as dishonorable, the physician alone gives valuable information, particularly when he, as the family physician, is familiar with the development and character of the various members of the family from their childhood.

(*To be concluded.*)

HEREDITY AND EPILEPSY.*

By SANGER BROWN, M. D.,

Professor of Nervous and Mental Disease Chicago Post-Graduate Medical School: Fellow of the Chicago Academy of Medicine: Fellow of the N. Y. Academy of Medicine: Member of the London Eng. Neurological Society.

AS a working hypothesis, I have elsewhere assumed that an organic substance which I have termed neurenergen is contained in the body of the neuron and that it is by the destructive metamorphosis of this, that the neuron is able to manifest the energy peculiar to it. During repose, this metamorphosis is so slight, there is such a nice automatic adjustment or coordination between the chemical stability of the neurenergen and the forces of the neuron which may be supposed to promote the metamorphosis, that practically a state of stable equilibrium results in which only enough energy is made manifest for the maintenance of a condition of tone. During voluntary activity, however, neurenergenetic metamorphosis and neuronic energy are more or less notably increased, but the coordination between them is preserved; though under these circumstances the equilibrium may by regarded as somewhat unstable.

According to this hypothesis, the phenomena of epilepsy might be accounted for by assuming that this equilibrium is for some reason suddenly lost and fulminoid or explosive discharge of neuronic energy results. This might be explained either by assuming a morbid increase in the quantity or an alteration in the chemical composition of the neuronergen, whereby its stability became greatly reduced;

*Read before the Chicago Medical Society in Outline April 3, 1901.

or a suddenly developed abnormality in the neuron itself, markedly increasing its excitability or magnifying its power of provoking neurenergentic metamorphosis.

Thus the etiology of epilepsy should be sought in those influences which might be expected to predispose to or excite the conditions above hypothecated.

With present available methods, there is no probability of being able to detect neuronic changes that might throw any light on the subject, and, so far as I am aware, no progress has been made in this direction. The suddenness and violence of phenomena in epilepsy are certainly suggestive of chemical reaction, and inasmuch as organic chemistry is a fascinating subject and material is always abundant because the experimentation can be carried on during the lifetime of the patient, careful and extensive research has been made along this line; but so far, no valuable results have been reached. And indeed therapeutic measures founded upon the theory that the disease was due to an excess or diminution of this or that organic substance in the economy have been utterly disappointing. To just what extent, however, it may be desirable to attempt to separate even hypothetically, weakness of nervous tissue from chemical instability of the neurenergen, I am not prepared to say, but the fact that in the large majority of cases repetition appears to favor frequency and that the latter is a potent factor in determining mental deterioration, would seem to magnify the etiological importance of the nerve element. Cases like the following, though somewhat exceptional, so far as the immediate exciting cause of the individual attacks are concerned, seem to support this view.

Case I. A girl of eighteen with a bad dissimilar heredity had severe convulsions while teething and then was free till her twelfth year, when typical major and minor attacks began with the establishment of the menses. She was rather precocious mentally, but enjoyed good health in the meantime. The epileptic seizures became more severe and were accompanied by progressive mental and moral deterioration. They were commonly excited by a comparatively slight shock of some kind as the unexpected ringing

of the door bell, dropping of a dinner plate, etc. Incidentally, it may be stated, that vigorous enforcement of hygienic measures and the bromides brought a prompt transformation but of course did not effect a cure.

Likewise, those cases developing in early infancy, where many slight seizures—a hundred or more, occur daily, it seems not improbable that the effect is mainly in the tissues themselves, whereas, those cases which develop in adult life and in which attacks occur only once or twice a year or less frequently even, it seems more reasonable to suppose that a sudden chemical change in the neurenergen is the most prominent etiological factor.

The frequency and extent of hereditary influences in the etiology of this or any other disease can at best only be reduced to an approximate inference, which must be made by an appeal to statistics. These vary with the education, the mental habits, honesty, accuracy of observation, etc., of each individual who collects or gives the information from which they are compiled. The inaccuracy and insufficiency of this information, together with the imperfect manner with which it is often analyzed and classified, affords to some extent a measure of the liability to fallacy.

Heredity may be divided conveniently into two classes, similar and dissimilar. Similar heredity implies the existence of epilepsy in ascendants, while dissimilar heredity refers to such ancestral diseases as insanity and imbecility. Authors are far from agreeing as to what diseases should be included in the list of dissimilar heredity influences. Some would include tuberculosis, migraine and hysteria. All agree however, that insanity and imbecility are by far the most important factors. Accepting this latter limitation, Gowers finds either similar or dissimilar heredity in 33% of all cases and of these two-thirds are similar and one-third dissimilar, with a slight preponderence of females. Similar heredity is more often transmitted through the mother and the heritage prefers the sex of the parent from which it was derived. That inherited epilepsy begins in the great majority of cases before twenty is compatible with the

view already expressed. That the disease is due largely to an inherited effect of the nerve elements rendering them unduly unstable; and conformably the fact that a majority of all hereditary cases begin during the same period, would be expected, when the eminent instability of the nervous system during childhood, youth and adolescence is remembered.

The element of heredity is of some moment in prognosticating the course and character of the disease, but of decidedly less significance in estimating the probable result of treatment. As might be expected, instances are not wanting where the course and manifestation of the disease throughout presented striking similarity in child and parent, even after making allowance for the great number of features common to non-heredity cases. There is authority for the assumption of an increased liability to insanity in cases where that disease existed in the ascendants.

I have seen an intimation somewhere that cases of heredity epilepsy were more amenable to treatment than those devoid of this feature. My experience does not prompt me, however, either to confirm or contradict this statement.

The psychic or mental manifestations may be conveniently divided into those either momentarily preceding or terminating in other phenomena, or those extending over a period ranging from a few minutes to a few days prior to the seizure or seizures; those which alone comprise the individual attack and those which are a result of the fits either momentarily or remotely; and finally, a class of cases in which the mental disorder is of such a nature that it might be more properly regarded as an association with rather than expression of epilepsy. Indeed, there is a wide border running between these last named cases on one side and the actual insanities on the other.

Of the first class, the most common are those which momentarily precede the fit and fairly constitute a mental or psychic aura. To mention these in the order of their frequency, I should say that those cases come first in which a familiar environment seems strange, and next those in which the surroundings seem a repetition or at least pecul-

iarly familiar. There is a vivid mental perception of detail, sometimes, analogous to the visual impression made by a lightning flash in dense darkness. Vague fear, but perhaps intense; a depressing sense of confusion; a consciousness of absurd or trivial mental contents; anger; revenge; joy amounting sometimes almost to a mental or psychic orgasm; a vivid recollection, sometimes quite elaborate—a girl at the Queen's Square Hospital, London, always had a vivid mental picture of a play-ground and play-mates of some years before.

Those changes which precede the seizure for a variable period, are properly regarded as premonitions. They commonly consist of marked irritability, depression, violent explosions of temper, indecency, untruthfulness, or a sense of mental exhiliration and joyousness rapidly progressing to maniacal confusion and frenzy.

The following case is illustrative of this latter change:

Case II. A gentleman of forty-five, for some years under my care and observation at the Bloomingdale Asylum, developed epilepsy after a bullet wound received in battle which had destroyed the seventh nerve and left a large hole in the mastoid. His fits usually came in groups of from two to five covering a period varying from two hours to two days. Naturally he was quiet and reserved—indeed saddened somewhat beneath his infirmity. From a few hours to a day or two before the seizure, the mind would become very active. Various events of his past life would unfold before him in great detail, and his power of penetration and analysis seemed to him so magnified that innumerable grand and varying vistas were rapidly opening up before him, and these he contemplated with something like rapture. He said it seemed all a revelation and that no words of his could even faintly express his happiness. As the excitement progressed, he would sing, shout, and attempt to scuffle with whomsoever happened to be near, unmindful of the proprieties. Finally he became confused, noisy, utterly incoherent, violent and frenzied, failing to recognize or regard his best friends. Some authors might claim that this was transitory mania culminating in epilep-

tic convulsions, regarding the maniacal condition as more prominent and essential than the epilepsy.

Either the auræ or premonitions above mentioned may occur alone in those cases in which they also occur in direct relation to the other epileptic manifestations. In this case it is fair to call them epileptic. They are true epileptic seizures confined to the mental or psychic sphere, not properly epileptic equivalents.

Though any of the mental changes above alluded to are more or less strongly suggestive of epilepsy, even when they are not known to be associated with the other signs of the disease, they probably do occur to some extent independently. In estimating their significance, their suddenness, severity, duration, immediate and remote effects would demand careful investigation. This applies mainly to the momentary attacks. The following cases seem to support the view that both transitory frenzy and protracted automatism, with complete and amnesic meta-consciousness may happen without epileptic associations.

Case III. A well raised young gentleman of seventeen, with good heredity, started for home at nine in the evening from the house of a friend a few blocks distant. He was found two or three days later several miles from his home along the railroad tracks in the thinly settled suburbs of the city in which he lived. His normal mental state suddenly returned upon his discovery by his relatives. He had a hazy recollection of some incidents that occurred during his mental obscuration, and if there might have been an occasional indistinct glimmer of normal consciousness. This occurred fifteen years ago. He made a good recovery and graduated from a university with a good record and has remained well ever since.

Case IV. A prosperous contractor, vigorous and past fifty, suddenly became oblivious of his surroundings, screamed and shouted meaningless words, sometimes profane, and obscene, and showed violent resistance when interfered with. Was given a strong hypnotic and slept after a few hours. Still a few hours later awoke in his usual mental state without the slightest recollection of what had hap-

pened. A few weeks later he was brought to the asylum after a rather long attack. He remained there two or three months, during which time he had one seizure at least, lasting nearly two days and nights. His general health was excellent and he finally declined to remain longer, though anxious to please his family. He evidently was far from being able to realize his true condition.

In view of the sudden and apparently unprovoked change in the nerve elements, pathology permits a parallel to be drawn between these cases and epilepsy, and the same might be said of migraine; but there is certainly no necessary or even common clinical affinity.

Some degree of mental dullness frequently follows directly upon an attack of grand mal. Occasionally,however, a great exhilaration, amounting to mania, lasting a day or two, occurs, so severe as to require legal restraint. Indeed post-epileptic transitory frenzy has been described as occuring unassociated with the fits, but I have never seen a case of this kind. In the epileptic wards of the New York city hospitals for the insane, I have seen violent frenzy lasting from a few minutes to an hour or more develop immediately after the fit, both in cases where these manifestations constituted the sole mental disorder as well as in those where obvious signs of dementia existed. Doubtless under these circumstances, transitory frenzy might constitute a valid defense for homicide. Indeed, a defense of this kind would be very strong if the defendant were known to suffer from epilepsy whether the frenzy had been previously known to be intimately related to the fits in point of time or not.

Remotely, moroseness, irascibility, stubbornness, meanness, treachery, vindictiveness, different degrees of dementia and mental brilliancy are all found variously combined in association with or (excepting the last) as a result of epileptic seizures.

Consequent mental deterioration is usually said to vary directly with the number rather than the severity of the fits. Therefore, as the number of the attacks of petit mal is likely to exceed those of grand mal, the influence of the

former on the mind is reckoned more deleterious than the latter. I believe this to be erroneous; for, to illustrate, if a patient could live for a given time having, say twenty major attacks daily, his mind would undoubtedly suffer more than if he had a like number of minor seizures for the same period. As a matter of fact, cases with very frequent (say fifteen or twenty daily) haut mal do not as a rule live many months; whereas in petit mal the general health might be little affected by such frequency; hence it would happen that mental defect would be more often observed in the living associated with the latter form.

It seems hardly necessary to add that during the period of development the mind is more susceptible to this as well as to other harmful influences; not only is normal development of the tissues through which the mind operates retarded, but the disease often excludes the child from a fair share of moral, social and intellectual training.

It is a matter of common observation that occasional attacks of grand mal in the adult are sometimes altogether without permanent effect upon the mental faculties. I will refrain from repeating the stereotyped historical instances in support of this statement; neither shall I attempt at this time a definition or discussion of the borderland separating epilepsy on the one hand from various forms of alienation on the other.

FATIGUE IN ITS RELATION TO CONSCIOUSNESS.

By W. XAVIER SUDDUTH, A. M., M. D.

Fellow of the Chicago Academy of Medicine, Professor of Psycho-Pathology in Chicago Post-Graduate School.

THE intimate relationship between mental states and bodily conditions is perhaps best studied in abnormal rather than normal types; nevertheless, in certain of the commoner experiences of life which come under the observation of the teacher and parent, it is a subject of general observation and is demonstrable that fatigue of body as well as fatigue of attention have not only a physical but a psychical basis.

The limit of resistance of protoplasm which is to be observed in fatigue, in general, but more especially in fatigue of attention, is well known to the nerve specialist under the terms nervous exhaustion, nervous prostration and neurasthenia. The phenomenon of what is ordinarily known as "second wind" shows very plainly to the most casual observer the influence of the mind over the body in extending the limit of resistance of protoplasm in ordinary physical fatigue. Many times, while tramping in the mountains during my summer vacation, I have found myself at close of day several miles from camp and so completely wearied that it seemed as though I could hardly drag one foot after the other; however, by fixing my attention on the camp and picturing the evening meal which I knew was in course of preparation at that hour, and especially calling up the aroma of the coffee, I insensibly found my-

*Read before the Chicago Academy of Medicine 1901.

self walking briskly, head erect and all sense of the previous fatigue gone as by magic.

In similar manner, by auto-suggestion, I have dispelled bodily fatigue when walking the streets of the crowded city, by forcing myself to assume an erect position and mentally attributing to myself a sense of lightness and elasticity. The weary limbs soon responded and all sense as well as semblance of fatigue passed away. Even so is the "Pacer to the racer," be it a fresh wheelman at the finish of a bicycle race or a running mate to the trotting horse in a race against time, whereby the contestant is spurred on to his greatest exertion and the limit of resistance of the protoplasm extended, and this without subsequent bodily injury. The superhuman effort of a mother which enables her to save her child from danger, it may be from a burning building, or to snatch it from in front of an approaching car, also illustrates the possibility of extending this limit of resistance through mental stimulation. Every teacher is familiar with the magical effect of a few minutes exercise in the school room to the music of a stirring march in "waking up" a weary class, when fatigue of the body, the instrument of the mind, induced such a state of fatigue of attention as to prevent good mental work.

Several causes lead to early fatigue of attention, among which may be mentioned imperfect structure and over-use of organs of expression, operating separately, it may be, but generally conjointly. A perfect machine, well oiled and run within the limits of its field of adaptability, should never show or feel fatigue. In this electrical age, however, there are few perfect human machines and consequently few individuals who escape feeling mental and physical exhaustion at times.

Inhibitions of attention due to nervous exhaustion or so-called brain exhaustion are ever present symptoms in neurasthenia and many forms of insanity. This failure of the powers of attention may appear at times to be an almost complete atrophy. It may arise from functional and nutritive disturbances. The phenomena are manifold. Seldom described the same by any two persons, one says he feels

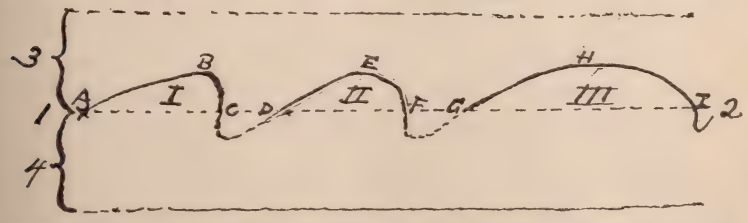
an "aching void," a painful void, a sense of fatigue (mental), an inability to hold or retain the idea as if it was slipping or sliding away. In others it is a condition of mental distraction where many mental images crowd upon each other so rapidly that none are clearly outlined—inability to collect his thoughts.

The body is the means of expression of the mind and the organ of the soul which eventually comes to self-consciousness the development of sense-comparisons. The child-mind may be compared to that of an adult looking out upon the world at twilight, or on a misty morning when "men are seen as trees walking." Contrast of sense-experiences, shows a difference between men and trees. Perception of difference, however, lies with growing intelligence rather than with body or sense-organs. We are made aware of this difference through a dawning consciousness which comes through comparison of sense-relationship. Absence of organs for sense-perceptions means lack of means for the development of consciousness. Deficient or imperfect sense-organs, in proportion to the ratio of deficiency, cripple and limit the development of objective consciousness. And as the power of attention is an attribute of consciousness, or at least, is dependent upon it for its proper manifestations, it may be well to dwell somewhat upon this aspect of the mind in order to throw such light as we may upon fatigue of attention when it exists.

It matters not whether we accept the monistic or dualistic theory of mind, the conclusion is the same in the present study. If the monistic, then we must admit two planes of consciousness, one of which may be termed objective and which operates above the threshold of consciousness, and the other, the subjective, found below the threshold of consciousness and outside the field of attention, which, as we have before indicated, is intimately associated with the objective consciousness, if not entirely dependent upon it for its proper power of manifestation. The process of making comparisons between sense-experiences is by concentration of attention in the field of objective consciousness, which is fatiguing in proportion to the length of time that the idea

or object is held in the attention and to the intensity of the thought process. The stream of consciousness is continuous, whether the process is maintained in the field of objective consciousness or is allowed to pass without the field of attention into the objective consciousness. Time will not permit the discussion of this phase of the question. There is, however, a direct ratio between the concentration of attention in the field of objective consciousness and the lucidity with which the thought is presented.

Consciousness may be compared to a wave which, while not progressing itself, yet by its alternate rise and fall projects forward toward their destination objects that are cast upon its bosom. Natural attention is spasmodic, rising and falling with the ebb and flow of the wave of consciousness; now above, now beneath the threshold. It is thus that nature avoids fatigue, which is pathological whenever it is persistently present. Primitive man followed his inclinations, now fishing, now hunting, as the spirit moved. Polyideism rather than monideism is the natural state of the mind. The child mind is ever primitive in its action, and the development of the power of attention is commensurate with the advance of the individual in the process of enlightenment. The diagram herewith presented may be said to represent the wave of consciousness in the child-mind in that portion marked I; the adult mind at II and the trained mind at III. The threshold of consciousness is represented by the straight dotted line running from 1 to 2; the space above this line enclosed in the bracket and marked 2 indicates the field of attention in the wave of objective consciousness; while that marked 4 represents the field of



subjective consciousness. The solid lines marked A, B, C; D, E, F; G, H, I, indicate the wave of consciousness in

the field of attention, while the dotted line between C. D. and F. G. lying below the threshold, may be said to represent the idea or thought that has passed out of the field of the objective attention. It is not lost however, as it may be recalled at any time and again placed actively in the field of attention.

EXPLANATION OF DIAGRAM.

I. Field of consciousness in mind of child.

II. Field of consciousness in mind of average adult.

III. Field of consciousness in mind of educated adult.

1.—2. Plane of threshold of consciousness.

3. Field of objective consciousness, hence field of voluntary attention.

4. Field of subjective consciousness.

A. Point where wave of consciousness comes into the field of attention by being lifted above the threshold of consciousness.

B. E. H. Crests of wave in field of attention.

C. D. and F. G. Troughs of waves below the threshold of consciousness.

A. B. C. In the diagram may be taken to represent the field of attention in the wave of consciousness in the child-mind.

D. E. F. That in the average untrained mind, and G. H. I. the maximum development of the power of attention in the mind of the educated adult.

The height of the wave of consciousness above the threshold of consciousness as represented in the diagram at the points B. E. and H. would also mark the time of greatest intensity in the field of attention. The variations in the power of attention in different individuals I have endeavored to show in the length of the line of the wave of consciousness from the point of greatest altitude before it is lost by submergence in the field of subjective consciousness below the threshold of the latter. In the child-mind the idea drops suddenly from the point of greatest lucidity as indicated in line B. C. In the average adult mind the power of attention is generally greater and the object is held longer in the attention and may be represented by the more gradual descent of the line E. F. into the field of sub-consciousness; while in the trained mind, where the power of attention is at its maximum, the length of the curve is greatly extended, as shown in H. I. in the diagram. This prolongation of the time in which an idea

or object may be held in the attention varies very greatly in different individuals. Concentration of the attention is generally practiced by an effort of the will. In that degree that the will is called into play to hold or fix the idea or object in the attention does fatigue of attention manifest itself. If the will is exerted to exclude all other objects that might engage the attention, leaving one idea alone uppermost, there is less fatigue present. This is what I have termed development of the attention by exclusion.

The process of education should teach the child to voluntarily extend the length of the wave of objective consciousness by holding the idea or object under consideration in the field of attention with the least expenditure of vital force. Attention may be defined as a cognitive effort to grasp an idea, and therefore is primarily a mental effort. Yet the power of attention is assisted and accentuated by an attentive attitude of the organism as a whole, and herein is demonstrated the interrelationship of body and mind before referred to. No better illustration of this dual relation can be had than can be seen in the action of a trained fox terrier who *attends* from the end of his abbreviated tail to the very tips of his ears and the point of his nose.

While natural attention is primarily a mental state, yet educated attention is also a physical condition. Without the fullest coordination of two or more of the organs of sense it is never at its best; hence the fatigue of body that follows long periods of study. In this we also find suggestion for prevention of fatigue of attention by change of body position or line of study in order to break up the tense muscular contractions that so often accompany the process of concentration of attention.

Ability to attend depends so largely upon motor-activity that to suppress the latter, handicaps, if it does not entirely inhibit, its continued application. If you try to watch the movements of even so common an object as a bull in the grass, you will find that you can follow it only so long as it continues to move. Let it remain quiet for a short time and you will find that while it still remains within the field of vision it has fled the field of attention. Cause it

to move even so little or change your own position and it immediately comes into view again by being restored into the field of objective attention.

The same holds true of the attention in microscopic work and all other lines of study or work that require close application. The eye wearies from continuous looking at a quiescent object and the power to attend is lost. Knowledge of this fact has led me in years past to constantly admonish my classes in microscopy to "keep the finger on the fine adjustment screw." By changing the focus, the object which was temporarily lost is again restored to sight although it had never left the field of vision.

James finds that in the field of consciousness are many objects for attention. These, he says, are more or less submerged in the wave of consciousness to be lifted up from time to time into prominence into the field of attention. It is by careful grouping of these associated ideas that the attention is held by the educated mind. The power to properly group these ideas marks the trained from the untrained mind, or indicates a disordered state of mind.

I cannot do better in closing than to call attention to the fact that there is a limit to the power of development of attention and that in some instances the ability to dismiss ideas from the field of objective attention is more to be desired even than the power to attend. It is dangerous to the bodily organism to hold an idea in the field of attention and thus constantly remain in the field of objective consciousness to the exclusion of all other ideas or thoughts. Such a condition is medically known as *Fixed Ideas*, and when it exists is subversive of reason, leading in many instances to insanity.

THE PROPHYLAXIS OF INSANITY.

By A. DEBORD YOUNG, M. D.,

OKLAHOMA CITY, O. T.

Formerly with the St. Louis Insane Asylum; Late resident Physician, Illinois Insane Hospital, Jacksonville.

THERE is vaccination as a prophylactic measure against variola, anti-diphtheritic serum to prevent the spread of that dread disease, and a host of others. Is there no means whereby the number of insanity cases can be reached? Since so large a per cent of mental troubles are essentially of a chronic nature, and since the clouds that obscure the intellectual vision of these unfortunates are so often brushed aside, it is obvious that a greater truth was never spoken than the old adage: "An ounce of prevention is worth a pound of cure."

It is taken for granted then, that it is the duty of the family physician (for the laity is not educated in these matters) to mould out of the neuropathic individual a useful member of society, who, otherwise would perhaps become a mental wreck upon the sea of life.

It is better to first consider what cannot be done; for, from the time that the insane were supposed to be possessed of devils, to the present day, theoretical and visionary ideas have been advanced that are not in the least practical. Witness the suggestion that a law be enacted forbidding the marriage of pathological individuals. This is decidedly impractical. In the first place: Who would have the hardihood to trace a line of demarcation between those who were fit and those who were unfit to marry?

Some have proposed that those who have had syphilis, be not allowed to enter the matrimonial state. Have

they forgotten that the grand-children of syphilitics are just as apt to show the stain, as those of the first generation? "And the sins of the father shall be visited upon the children unto the *third and fourth generation.*"

Others have proposed that the mentally unbalanced shall not be permitted to marry. What tribunal in this broad land can be found that will be competent to say where eccentricity ends and insanity begins? And so on, *ad infinitum.*

Suppose such a law were placed upon the statute books, would not such children be born out of wedlock, and would not more criminal abortions occur, and the nervous systems of more women give way on account of these? One of the characteristics of those mentally inferior, is the lowered moral tone, and such happenings would be of more frequent occurrence.

Therefore, taken in its broad sense, a law, looking to the control of marriage would be the source of more harm then good.

Another means proposed is the unsexing of all persons whose mental infirmity is traceable to, or aggravated by the abuse of the sexual apparatus. Their trouble must have advanced very materially to warrant such radical procedures on the part of the surgeon, and their mind must have been decidedly enfeebled. So, after it is done, what is left? An automatic nonentity, whose physical health may become improved, but whose mental condition remains the same to the end of the chapter, still a care upon his friends and society.

So it goes, most of the plans presented have proven impractical. To the mind of the writer there is one way to control insanity, and even after years of earnest efforts upon the part of physicians, it will only partially succeed. I refer to education.

This education must be commenced with the babe in arms. If there be a nervous or mental hereditary stain in the attendant history of the child, the mother must be coached as to the methods to be used in the rearing of the little one. She must be made to understand that it is no

disgrace to have insanity in the family, but that it is a disease the same as is scarlet fever or the measles, and that if she desires to see her child go through life with an unimpaired intellect, she must follow the physician's directions to the letter.

The child must live out of doors as much a possible. Its literary education must not be started until seven or eight years of age, though it seems talented and acquires knowledge with little effort. Indeed, beware of the precocious child.

> "Genius to madness is near allied,
> And thin partitions do their bounds divide."

The child must be taught self-restraint, its temper must be controlled, and it must learn to bear small pains and annoyances without complaint.

A well ventilated sleeping room, not too warm, must be furnished, regular hours, and a good plain wholesome diet must be insisted upon. In fact, develop the child physically instead of mentally. All nerve stimulants should be avoided, such as tea, coffee, alcohol and tobacco. Finally, let the occupation chosen in later life, be one for the muscles rather than for the mind, an out-door rather than an indoor one, a country rather than a city life.

Let these few precepts be religiously followed, and the efforts of the physician will oft-time be crowned with success.

COMBINED MONOBRACHIAL CHOREA AND WRITER'S CRAMP FROM OCCUPATION STRAIN.

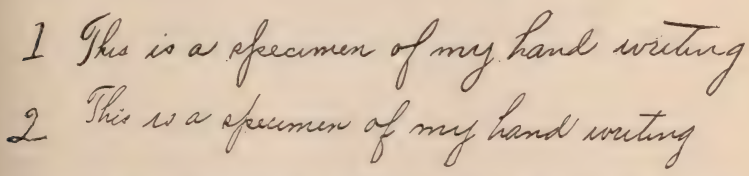
A CASE RECORD IN THE PRACTICE OF DOCTORS C. H. AND MARC RAY HUGHES.

AN interesting case of monobrachial chorea, and thumb and finger spasm, came under our observation, and treatment during the past quarter.

The patient was a young unmarried American lady of eighteen years of age, intently and enthusiastically engaged in the study and practice of telegraphy and short hand, devoting twelve or more hours daily to her practice. Her financial circumstances were good and she was fairly well nourished, but sleeping badly at the time this catastrophe of occupation chorea, finger palsy and spasm came upon her. She was ambitious to excel all others in rapidity of accomplishment of this art, and added to her strenuous effort in this direction was her habitual attendance at dancing school, music lessons, and frequently the matinees. She gave out suddenly in accuracy of control over thumb and finger movement. The whole right arm becoming soon after involved in the jerk movement or chorea, exaggerated when she attempted to write with pen or pencil, but the choreic movements were displayed, as in other forms of chorea, independently of any attempt to coördinate the use of thumb and fingers. The case is one of true Scrivener's palsy blended with brachial chorea. There was no history of chorea or other neurosis in the patient or in her immediate family.

Her menses became suppressed just before the onset of this choreospastic condition.

Under chemically enforced rest of the affected member and brain, with cephalic, and cephalo-brachial alternate day galvanizations, suppression of all mental strain and suspension of all technical efforts being enjoined, the case appeared completely recovered after ten weeks of treatment so that she wrote as follows after recovery:



The first specimen of the copy was written with lead pencil, the second with pen and ink. After making a third effort some spasm became apparent in the attempt to form the first two letters of the above copy. The patient showing some trepidation at continuing the attempt, she was enjoined to make no further attempt for the present, and to give up all exciting amusements, company or reading, and substitute open air, agreeable walks, rides, and recreation.

Her electrical seances, nerve and brain tranquilizing medical treatments were resumed. A neuro-hematic reconstructive tonic therapy being prescribed in addition with thirty grains of bromide and two teaspoonfuls of Fairchild's Essence of Pepsin every day after the evening meal.

The education of the left hand was advised, and the abandonment of the idea of making a vocation by the use of her pen, for the future, was discountenanced.

DEGENERACY STIGMATA AS A BASIS OF MORBID SUSPICION.*

A STUDY OF BYRON AND SIR WALTER SCOTT.

By JAS. G. KIERNAN, M. D.,
CHICAGO.
Fellow of the Chicago Academy of Medicine; Foreign Associate Member French Medico-Psychological Association.

ONE symptom of insanity alleged by Lady Byron was the convulsive attack in the English theater already cited from Madden.† The description of this attack and the conditions under which it occurred, like those of the one at the Bologna theater, would fit both an outbreak of grand hysteria in an auto-intoxicated, emotionally unstable neuropath and epilepsy. Giving all due force to Madden's diagnosis, the infrequent recurrence of these attacks and their appearance from fatal malarial toxæmia in Greece, favor the diagnosis of grand hysteria rather than epilepsy. Demarkation in isolated attacks between grand hysteria in an emotionably unstable, badly trained neuropath, and epilepsy by the attack alone is often practically impossible. That Byron recognized the exciting influence of emotionalism on these attacks attacks at the proper ætiologic moment is shown by the suppressed laughter described by Captain Medwin.‡ Unrestrained laughter in auto-toxæmic states, not seldom excites a vertigo resembling laryngeal vertigo and the *vertigo a stomacho laeso* of Trous-

*Continued from the April, 1901, ALIENIST AND NEUROLOGIST.
†Infirmities of Genius, Vol. II. P. 92.
‡Journal of the Conversations.

seau. This when auto-intoxication is marked may be attended by unconsciousness and convulsive phenomena of isolated occurrence.

Byron seemingly had the suspicional nature of epileptics. To this he alludes with exquisite pathos in "Childe Harold":

> "I have thought
> Too long and darkly, till my brain became
> In its own eddy boiling and o'erwrought,
> A whirling gulph of phantasy and flame,
> And thus untaught in youth, my heart so tame
> My springs of life were poisoned."

In Byron this suspicional nature was not as in epilepsy, of intrinsic origin but arose from extrinsic factors. From emotional causes, Byron, like most neuropaths, fell readily into auto-toxæmia and during financial and other stress often had jaundice. The irritability from such states so well depicted by clinicians of that day, was doubtless given due importance by the physicians consulted as to Byron's sanity.

Mrs. Byron alleged that the keeping of loaded pistols by Byron in his bedroom, implied insanity. This will strike the average mind in these days of porch-climbing and burglary (crimes more frequent then than now) as exquisite absurdity. Of necessity Byron's travels in brigand-haunted countries moreover would readily produce such a habit. Lady Byron like other hysterics read her own significance into facts implying more logical explanation.

Lady Byron, according to Harness* (Byron's lame friend of Harrow) was self-willed, self-opinionated and the only young pretty well dressed girl he ever saw, who carried no cheerfulness with her. She moved slowly along her mother's drawing rooms talking to scientific men and literary women without a tone of emotion in her voice or the faintest glimpse of a smile upon her countenance. The impression which she produced on the majority of her acquaintances was unfavorable. They looked upon her as a reserved, frigid being whom one would rather cross the room to avoid than be brought into conversation with un-

*Personal Reminiscences, Bric-a-Brac Series, P. 186.

necessarily. Her intriguingly prurient denunciation of the alleged incest of Byron's sister to the latter's hebephreniac daughter, a young, innocent (so far as Lady Byron knew) girl, proved the existence of a remorseless hysteric mind. The attitude of Lady Byron towards servants and dependents depicted by William Howitt* is that of a hysterically implacable infallibility. The details of the Beecher-Stowe myth contrasted with the actual facts† demonstrate that hysteric wandering from hackneyed limits of the actual which accepts wishes for facts and varies "facts" with the variability of its impressions. The early environment of Lady Byron must have destroyed her power of judicial determination of facts.

The environment of Byron at the time of his marriage by itself would suffice to produce his delinquencies even in a poet much more favorably constituted by nature. From king to merchant the time was tainted with coarse narrow plutocratic snobbishness. Its favorite English literati were of caddish type like the Germans whom Goethe and Schiller castigated with the "Xenien." The sensation produced by "English Bards and Scotch Reviewers" was according to Bayard Taylor ‡mild compared with that produced by these. Byron, like Goethe and Schiller, created bitter enemies among the attacked and their satellites. Thomas Campbell embraced the cause of Lady Byron with enthusiastically unjustifiable bitterness. His attitude was that of an unscrupulous shyster. The fee was the compliment of Lady Byron having confided her "grievances" under the flattering pledge of inviolable secrecy. Lady Byron like most frigid hysterics had an ability of assuming "confidential relations with inviolable secrecy" to secure power and adherents. By the flattery implied in such confidential relationships, hysterics captivate self-admirers, especially those who, drenched with philistinism conceive themselves thereby endowed with opinions which must be "common sense." Lady Byron for years thus captivated poseurs of the "social purity" pervert type, of

*Homes and Haunts of Some Eminent British Poets, Vol. II.
†Noel Op. Cit. P. 116.
‡Translation of Faust.

the "superior" woman type, of the type which canted then about the inherent depravity of American institutions as it now cants about inherent depravity of non-alcoholophobia. No ostentatious charity or pseudo-reform failed of blatant support by Lady Byron as thereby were sycophants secured at slight cost. From her sedulous patronage of that modern notoriety dodge the "Charity" Ball, came Byron's bitter lines:

> "What matter the pangs of a husband and father,
> If his sorrows in exile be great or be small,
> So the Pharisee's glories around her she gather,
> And the saint patronizes her charity ball.
>
> What matters—a heart, which, though, faulty, has feeling,
> Be driven to excesses which once could appall
> That the sinner should suffer is only fair dealing
> As the saint keeps her charity back for the ball."

Campbell's emphatic assertion (a la Beecher-Stowe) of alleged enormities in his "friend" Byron, of the justice of Lady Byron's cause, and his plausible reasons for not citing facts to support his assertions, tended to produce an impression which, as R. H. Stoddard forcibly remarks,* nothing but facts testified to in plain words by unbiased witnesses, should produce; the production of such an impression even a prosecutor should not attempt in the absence of power to confirm it by facts.

Campbell was self-centered, self-dependent, yet social and fond of external excitement. Dashed with philistinism, objective and subjective constantly contended too strongly in him to permit of poetry of the first order. This instability created Campbell's great deficiency as a man and a poet. He had never sufficient control over himself, his intellectual movements. The maternal ancestors of Thomas Campbell had a marked tendency to insanity.† He wrote verses at ten, was imaginative, sensitive, and passionately fond of music. In this was seen the influence of the blood and resultant environment of the Celtic Highlander. At eighteen he had an attack of melancholia.

*Personal Recollections of Thomas Campbell.
†Nisbet Insanity of Genius.

Campbell accompanied Professor Fillians to his father's house so intensely depressed that the father accused the latter of bringing a man bordering on insanity. In a Celtic Highlander however, alternations of depression and exaltation are not as significant of mental disturbance as in a Lowlander. Campbell, when at the height of his fame and in most prosperous circumstances, insisted he was ruined. He frequently suffered from uric acid states which to some extent explain the periods of irritability, capriciousness, depression and suspicional exaltation which so often marked him. To these states were also in part due his intolerance of alcohol and resultant seemingly excessive indulgence at irregular intervals. He died demented at sixty-seven.

Through suspicionally envious pessimism miscalled "common sense," Campbell ignored in Byron's case the "Golden Rule" and the English common law. Both commanded him to presume every one innocent until proven guilty beyond a reasonable doubt and to construe anything which could be so construed, favorable to innocence. His puerile jealousy toward potential rivals led him needlessly to exalt himself, as a poet, at the expense of Byron, Sir Walter Scott and greater contemporaries. Campbell, like a hysteric American (who later had reasons to regret popular acceptance of hysteric delusions as to a brother*) accepted without question the hysteric emanations of a mind marred curiously like his own but without the same poetic power.

Southey whose narrowness, mental poverty, and apostasy from early republicanism made him Poet Laureate, followed likewise the gang which howled after Byron. Southey came of very neuropathic maternal stock. His maternal uncle was an imbecile of the Shakespere "fool" type. He had the inventively stupid shrewdness of that phase of mentality. Southey's brothers and sisters as a rule died early; in one instance of hydrocephalus. Southey, lithaemically neuropathic throughout life, became demented about sixty. Southey and Byron crossed literary swords over

*The Tilton-Beecher Scandal.

the former's apostasy. Byron's "Vision of Judgment" satirized Southey's preposterous panegyric of George III with the same title. Southey denounced "Don Juan" as a monstrous combination of horror and mockery, lewdness and impiety, regretted that it had not been prosecuted and saluted the writer as the chief of the Satanic school. Byron's parody of the panegyric brought down upon him the vengeance of royalist snobs whereby his publisher was fined. Southey was effectually extinguished by this exquisite burlesque.

The hypocrisy of Southey's attitude becomes obvious when his fulsome toadyism to George III and IV is remembered. Byron's delinquencies were almost virtues compared to those of George III and the Prince Regent afterwards, George IV. George III, one of the most imbecile mentally and morally of English kings, was intellectually and ethically akin to the English plutocrats who urged on his war upon English, Scottish, Irish, American, and French freedom. From avarice he evaded his children's claim on his civil list thus producing that attempt at taxing Americans without representation which formed the United States. His political creed for English men (absurd in one who owed his throne to the 1688 Revolution and a resultant parliamentary statute not "divine" right) was: "Fear God and Honor the King." Strong as Byron* puts the case against him:

> From out the past
> Of ages, since mankind have known the rule
> Of monarchs—from the bloody rolls amass'd,
> Of sin and slaughter—from the Caesar school,
> Take the worst pupil, and produce a reign
> More drenched with gore, more cumber'd with the slain.
>
> He ever warr'd with freedom and the free:
> Nations as men, home subjects, foreign foes,
> So they that uttered the word "Liberty"
> Found George the Third their first opponent. Whose
> History was ever stain'd as his will be
> With national and individual woes.

Yet this censure is mild compared with the sober

*Vision of Judgment.

judgment of Green,[1] Macaulay,[2] and Greville,[3] and the caustic invective of Junius[4] and Patrick Henry.[5] Toward women he was as guilty,[6] secretly of base betrayals as George IV was blatantly. His avarice, his worship of the sacred strong box, his cant, his "law and order" and "farmer" dodges, his deference to the "respectable business man" still so sway the British philistine that Thackeray[7] and Besant[8] dominated thereby have written mawkishly fulsome biographies of him. His aid to the "law and order" dodge (whereby plutocrats defraud workmen by threats of imprisonment) was prompted by more despicable meanness than cant. He and "snuffy" Queen Charlotte not only shared[9] in jobs but eternally tried to extend the field of the laws forfeiting a felon's goods to the king. For this purpose more offenses were made capital during the reign of George III alone, than during the reigns of all the Plantagenets, Tudors and Stuarts, put together. The most venial crime was severely punished. The result, as the satirist, sung was that:

> "Scarce can our fields, such crowds at Tyburn die,
> With hemp the gallows and the fleet supply."

These executions did not reduce crime. Forgery was seldom if ever pardoned, yet, as James Payne[10] points out, forgeries increased from fifteen prosecutions in January, 1798, to two hundred and forty-two in January, 1819. For the worst judicial murders, George III and the shop-keeping, manufacturing, and merchant classes, were directly responsible. A husband was pressed for a seaman. Left to starve with two children, one at the breast, the wife stole a bolt of cloth and escaped. Her conscience troubled her, she returned, replaced the cloth and was captured. She was found guilty and sentenced to death. An appeal

1History of the English People.
2Essays: The Earl of Chatham.
3Memoirs.
4Letters.
5Life and Speeches.
6Banvard: Court and Times of George IV.
7The Four Georges.
8A Fountain Sealed.
9Caricature History of the Georges.
10Gleanings of Dark Annals.

in her favor to George III was rejected because the cloth merchants demanded an example. The woman was hanged. The child being removed from her breast just ere the black cap was put on.

Byron like many English and Scottish Lords was bitterly hostile to such brutal avarice. In Byron's first speech in the House of Lords on the Nottingham frame-breakers bill which met with approval from statesmen he said: "I have traversed the seat of war in the Peninsula, I have been in some of the most oppressed provinces of Turkey; but never under the most despotic of infidel governments, did I behold such squalid wretchedness as I have seen since my return, in the heart of a Christian country." Reprobating the severe measures proposed against the poor, starving mechanics, who broke the looms that deprived them of food he asks, "Is there not blood enough upon your penal code that more must be poured forth to ascend to heaven to testify against you?"

Byron thus offended two classes still existent which never forgive. The court sycophant now represented by what Macaulay* calls

"Boodle's patriot band,
Fat from the leanness of the plundered land."

And the "respectable business men" who posed then as now, as churchmen, as ostentatious donors of charity, as supporters of canting conventionality of "law and order" while at the same time defrauding the public, the government and their workmen. This "gigmanity" as Carlyle calls it is responsible for the worst crimes of England from the crushing out of Irish industries to the American tea and stamp tax to the support of slavery in the war between the States, and to the "opium" war. Though Tennyson joined this class during the war between the States still its attempt to aid Napoleon the Little in crushing the second French Republic drove him indignantly to exclaim:

Though niggard throats of Manchester may bawl,
What England was, shall her true son forget?
We are not cotton-spinners all.

*Political Georgics 1828.

This class with the court camarilla stealthily bided its time to crush Byron. Byron's attack on George III and IV and the plutocratic classes finally roused "public" (plutocratic mob) indignation against alleged wrongs to his wife. The capricious "public" was, as Noel remarks, now for whipping and breaking its adored idol. People of his own class avoided him. Lady Jersey did not fall away from him, inviting him to her party on the eve of his leaving the country. Yet even that effort was a failure: the guests cut him, or treated him with marked coldness. Years after he wrote with satirical amusement of the behavior of his quondam friends that evening. The men were wreaking their vengeance on the man whom they disliked: first, because their women liked him; secondly, for not taking more port wine and beefsteak, like his fellow Britons; then for being a great poet, instead of an ordinary partridge-killing seducer who,—commendably free from the eccentricities of that uncanny thing called "genius," veneering his vices with a seemly show of decorum, conformity to established religion and the politics of privilege, throwing his pinch of incense on the altar of the great goddess Grundy, whose image is so well known to have descended from heaven; —might be received with condoning eyes, and deferential smiles into the bosom of the most respectable families, therefrom to carry in triumph the fairest and purest virgin to his den. But this man was also a satirist who had made enemies of the literary set not only by his lashing satire but by the sterling original excellence of his verse. Without one scintilla of proof he was forthwith compared to Nero, Heliogabalus, Tiberius and other celebrated criminals while his misconduct at home was mercilessly and monstrously exaggerated by rumor. Far worse men than he, ready to commit any crime in the interest of their own estate or their private property, men of the world as well as intolerable Pharisees made a queer sort of vicarious atonement for their own vices by an immoderate and unjust condemnation of his.

George IV had wronged Caroline of Brunswick and scores of women more deeply than Byron had been charged

with wronging Lady Byron. Yet this pseudo-religious class and its literary satellites toadied to George IV as king was never toadied to before.

This plutocratic indignation still re-echoes in the twentieth century partly through the logorrhoea of the hysteric entourage of Lady Byron; partly because of the prejudices raised by Byron's support of principles underlying the American Republic. This support so shocked plutocrats of his time that it still affects the devotees of Mrs. Grundy of to-day.

The effect of cant in obscuring truth, is singularly well shown in the fact that while Byron's domestic misfortunes are a horror to canting New England Pharisees, Milton's have been passed over without comment. Milton had struck fiercely at the church system of divorce and marriage, and thus had assailed a great source of theologic revenue. With all the oriental views of women of the narrow Pauline Christianity of his day, Milton was so far influenced by the individualism of co-existent thought as to demand freedom of marriage from ecclesiastical tyranny, Milton married the daughter of a royalist who was under financial obligation to his father. Probably pressure was exerted on the girl; if so it was unknown to Milton. After the marriage the family so intrigued with the girl against her husband and his cause that she refused to consummate the marriage. She subsequently admitted Milton was clearly in the right. In consequence of her refusal appeared Milton's "Doctrine and Discipline of Divorce" advocating divorce for incompatibility of temper. This pamphlet probably underlies most divorce legislation in the United States. Early Connecticut divorce legislation is clearly based upon it.

The divorce question however disguised by cant has always turned on the question whether church or state should receive fees for granting divorce. Under the Jewish law (still obeyed by Polish and Russian Jews) a divorce (the "get") is arbitrarily given by the husband before the Rabbi. Against this system of divorce Christ protested as it made women the victims of male caprice. The Jewish

law placed less restriction on polygamy and arbitrary divorce than does the Mohammedan. Early Christian contempt for women partly of oriental origin and partly due to the crime ascribed to Eve forced similar tendencies into English divorce law. Adultery sufficed in the case of women but in the case of men to adultery must be added cruelty. The Roman Church (while its canon law does not ostensibly permit divorce) annuls marriage on legal fictions; thus the marriage of Napoleon I and Josephine was annulled by the Pope. For centuries after the Reformation the House of Lords exerted with the agreement of Cranmer, (founder of the English Church) the power of divorce. Under what was called dispensation, marriage and divorce were modified to suit the exigencies of those endowed with power or cash. How wide the scope of the dispensation is shown by a question brought before Convocation, the chief ecclesiastic body of the English Church in 1882, when a clergyman applied for recognition of the legality of concubinage, in an appeal from the Bishop of London who declined to allow the lawfulness of relations into which the appellant had entered and virtually excommunicated him therefor. The law of England recognized no such tie but this was not regarded by the appellant as an adequate answer since his case was stated with exclusive reference to the canon law. The lower form of marriage, he showed, was expressly permitted in the early church by the canon law and had never been explicitly forbidden by the Church of England. Convocation on the plea of business and similar frivolous pretexts, excused itself from adjudicating this knotty point, left the appellant and his Bishop to fight the question out between themselves. Milton threatened during the Commonwealth that if the law as to divorce were not amended he would not obey it, but would act on that broader spirit of the common law which makes the privileges of one freeman end only where those of another began.

The protest of Milton was in essence the same as that of Byron but expressed with far greater dignity. The license of the court of Charles II encouraged and supported

as it was by the leaders of the Church of England prevented any serious prosecution of Milton for his divorce principles. High churchmen have however, ever aimed to reduce his literary reputation.

As Greene* has shown, the state of the English and Irish Church during the reigns of George III and George IV was as low as that of the Church during the reign of Charles II and his immediate successors. The subordinate clergy were usually appointed by dissolute squires and nobles to whom they had previously played the part of panders and sycophants. Such men naturally became enthusiastic supporters of "church and king" and headed the mob which drove Priestely, the chemist, from Birmingham because of his republican opinions. The Tory reaction consequent on the downfall of the French monarchy enabled the Church of England to denounce liberals for mild lapses while condoning gross violations of decency in the Tories, especially George IV.

For these reasons Byron encountered the fierce storm described. Had there not been the slightest difficulty with his wife, he would have encountered it for the reasons given just the same.

This storm blew up rapidly after his dazzling rise as a poet. Soon after Byron's speech in the House of Lords "Childe Harold" appeared with electric effect. Lord Byron and it became the universal theme. At his door, most leading men of the day presented themselves; even some whom he had attacked in satire. From morning till night most flattering testimonials to his success crowded his table from grave tributes of statesmen and philosophers down to romantic billets of incognitas or pressing notes of invitation from leaders of fashion.† In place of the desert which London had seemed but a few weeks before, Byron saw the whole splendid interior of high life now thrown open to him and found himself its most distinguished object. Moore feared that "Childe Harold" was too good for the age which significantly demonstrates the height of Moore's ideals.

*History of the English People.
†Moore's Life of Lord Byron

Its success, as Nichol observes,* was because it was just on a level with the age. Had it, as Jeafferson† remarks been equal to the poetry Byron wrote later it would have had less immediate success. It had a graceful beauty, was at times novel in subject and manner, faithful in description, the revelation of an interesting personality on the spot to confirm the impression. It was written by a peer, a "curled darling" of society fascinatingly sad, gently, not too vehemently, skeptic, or defiant. That it is not very intelligible to the unthinking did not lessen its popularity. It had, Noel remarks, too much melodrama and too great pose as to how interesting the author will appear to women. Walter Scott at once generously acknowledged that Byron had gone beyond him in lyric rush and swing. The critics ("who had failed in literature and art") after passing over with insolent silence or contempt Wordsworth, Shelley, Keats, Chatterton, and Coleridge, needed a new toy. "Public" opinion created by Murray's booming powers swept them from the cold classicism of Rogers and Campbell to Byron's fitful splendors. Byron, as Noel remarks, is very much akin to Burns whose supreme song "survives deep in the general heart." Burns has the same wild irregular passion, the same humor and intermingling of grave and gay, the same character full of contradiction. But as Burns had a tinge of coarse commonplace, so had Byron the gaudy pose of life and poetry that imposes on the crowd which acts but does not reflect. Wordsworth, Shelley, Keats, Chatterton and Coleridge waited while Moore, Byron and the lower Montgomery and Southey had their loud day.

At the height of his reputation from "Childe Harold," Byron's marriage was brought about. Miss Milbanke, who became Lady Byron, was the daughter of Sir Ralph Milbanke and Judith Noel. Sir Ralph was a prosy one-ideaed county aristocrat. His wife was a passionate, excitable, intriguing evil-seeking egotist. Miss Milbanke was a "paragon" of virtue at home; a child who got her own way and was spoiled. She was of that auto-erotic type

*English Men of Letters: Byron.
†The Real Lord Byron.

which puts meretricious constructions on the most innocent actions of friends, which makes self-indulgence an art, is indolent, selfish and "religious." She was attractive looking, ostentatiously philanthropic, clever, stiff, prim, formal, very priggish and pruriently prudish. Naturally therefore she was much influenced by her toady governess, Mrs. Clermont. The latter having been a successful governess in those snobocrat days was a skilled toady. Miss Milbanke during Byron's courtship had been so jealous of Lady Caroline Lamb as to satirize her in verse. Once she kindly told Lady Caroline that her affectation of a woebegone Byronic visage marred the effect of her "fair seeming foolishness." She thus so played the arts of the Minervan "coquette" as to outdo the impulsive Lady Carolina in Byron's esteem. The most skilled matrimonial intriguant could not better have posed at another woman's expense than did this "unsophisticated virgin" of the Beecher-Stowe myth. During the early months of marriage Lady Byron nagged Byron eternally, stimulated by her mother (whose conduct showed there were justifications for the pre-historic taboo* which kept the mother-in-law out of the son-in-law's way on pain of death) and the mischief making Mrs. Clermont. Even on a healthy man such nagging might have the disastrous effects which Shakespere thus paints in the "Comedy of Errors.

ADR. "It was the copy of our conference:
In bed he slept, not for my urging it;
At board he fed, not for my urging it;
Alone it was the subject of my theme;
In company I often glanced it;
Still did I tell him it was vile and bad.

ABB. And therefore came it that the man was mad:
The venom clamours of a jealous woman
Poison more deadly than a mad dog's tooth.
It seems his sleep were hindered by thy railing
And therefore comes it that his head is light,
Thou say'st his meat was sauced with thy upbraidings:
Unquiet meals make ill digestions;
Thereof the raging fire of fever bred;
And what's a fever but a fit of madness

*Letourneau: Evolution of Marriage.

> Thou say'st his sports were hinder'd by thy brawls:
> Sweet recreation barr'd, what doth ensue
> But moody and dull melancholy,
> Kinsman to grim and comfortless despair
> And at her heels a huge infectious troop
> Of pure distemperatures and foes to life?
> In food, in sport and life-preserving rest
> To be disturb'd would mad, or man or beast
> The consequence is then thy jealous fits
> Have scared thy husband from the use of wits.

There was therefore good reasons for the depression seemingly amounting to melancholia but due to adequate external causes which even Byron's sister noticed in him at that time. Urged on by the prying curiosity of Lady Milbanke, Mrs. Cleremont did not hesitate to pick locks and search private memoranda in order to pander to Lady Byron's worst qualities.

(*To be continued.*)

RACE DEGENERACY AND DENTAL IRREGULARITIES.*

By E. S. TALBOT, M. D., D. D. S.,

Fellow of the Chicago Academy of Medicine, Professor of Oral Surgery Woman's Medical Department Northwestern University.

FORCES tending to change, in an existing organism, act in various ways as part of the environment of the individual, and through its influence on him produce changes in the complex union of checks, balances, forces and material bases which constitute the human organism as inherited. Of necessity any change in this complex unity being unusual must be abnormal so far as the organism existing prior to the change is concerned. The question whether such abnormality be of benefit or injury is another matter.

As Virchow remarked seven years ago:† Transformation, a metaplasia, a change from one species into another, whether in individual animals or plants or individuals or their tissues, cannot take place without anomaly; for if no anomaly appears this new departure is impossible. The physiologic norm hitherto subsisting is changed, and this change cannot be called anything but an anomaly. In former days an anomaly was called pathos and in this sense every departure from the norm is a pathologic event. If such pathologic event be ascertained, this forces investigation as to what pathos was the special cause of it. This cause may be, for example, an external force or a chemical substance or a physical agent producing in the normal condition of the body, a change, an anomaly (pathos). This

*Being Chapter XVI of Irregularities of the Teeth.
†*Journal Amer. Med. Assoc.* Vol. XXXII, Page 1311.

can become hereditary under some circumstances and then may be a foundation for slight hereditary characteristics propogated in a family. In themselves these belong to pathology, even though they produce no injury. Pathologic does not mean harmful, nor does it indicate disease. Disease in Greek is nosos and it is nosology that is concerned with disease. The pathologic under some circumstances may be of advantage to its inheritor.

From this standpoint it is obvious that the fact whether a given change in the organism shall prove a defect or not is determined by the conditions of periods of stress during intra and extra-uterine life. According to general observations made by Weismann and others any condition affecting the individual must in some way affect the organism as a whole in order to survive these periods of stress.

In dealing with the origin of any defect or gain in the animal organism, several factors must be taken into account, independently of the simple element of heredity. Heredity moreover, is not the uncomplicated agent which is usually regarded as producing certain effects. In dealing with heredity the influence of inter-uterine stress on the fœtus must be determined. Unusual strain of any kind upon the mother during gestation may unfavorably affect the fœtus. The healthier the ancestry the less liable the mother would be to ill effect from such strain. On the other hand unusually favorable conditions during gestation may correct defects observable at previous pregnancies. Periods of stress are constituted by the different periods of embryonic development as well as by those extra-uterine. Even sex is determined by conditions of stress after certain periods. Poor maternal nutrition will determine an excess of males, while good will determine an excess of females. Arrest at certain periods of intra-uterine life will produce prematurely senile states; since there is a period in intra-uterine life during which the fœtus wavers between the senile appearance of adult anthropoid apes and that of mankind in youth. This intra-uterine stress may be an expression of the general nervous exhaustion of the mother which first affecting checking influences of the central nervous system finally

leads to unchecked excessive nervous action of the part of the local nervous systems of the organs, leading secondarily to exhaustion of these. In consequence the mother is unable either to manufacture proper elements of nutrition or to excrete waste material. The fœtus thereby, starved and poisoned, fails to pass through the periods of stress in a well-balanced manner. The stress in these periods is strongest on those structures which are transitory and variable in type. This influence may furthermore be exerted on the fœtus through stress, mental or otherwise, of the mother. The human fœtus exhibits, as elsewhere shown, very decided reaction to sensory impressions on the mother.

At every one of these periods, the forces which determine the variations of the individual from the race and those which tend to preserve the race type are in constant conflict. Conditions affecting nutrition of the ovum prior to fecundation (as derived from the mother) and conditions affecting the fecundation of the ovum (as derived from the father), as well as those derived from both father and mother after fecundation, will determine whether or not the fœtus shall pass through the complete embryologic evolution determined by the race type and whether or not individual variation present in the parents shall be transmitted successfully through these periods of stress.

While all of the factors enumerated enter into the cause of jaw degeneration, one of the great factors is the extraction of the temporary and permanent teeth. In no country is this pernicious habit so marked as abroad. Constant extraction of the teeth produces variations (arrest of development) which are transmitted from one generation to another. In the evolution of the jaws, nothing could be easier accomplished than this. One period of stress is marked by eruption of the temporary, and the next period of stress by the eruption of the second set. The first permanent molar is the first tooth to erupt in the permanent set. It is situated in the center of the jaw. Permanent teeth erupt anterior and posterior to the tooth. This tooth because it is larger, requires more room. The first molar is the first tooth to decay. As soon as it aches it is re-

moved. When the other permanent teeth erupt they move forward and fill the space made vacant by the lost first molar. Since, therefore, the jaw expands and grows only for the purpose of containing the teeth, if they be not present the jaw ceases to develop. What is true of the first molar is also true of the other teeth. In many countries one tooth after another is sacrificed as soon as it begins to ache. Not infrequently whole sets of teeth are removed in early life before the jaws have fully developed. The habit of early extraction of the temporary and permanent teeth from one generation to another causes arrest of development in two ways. First, through the inheritance of acquired defects; second, by natural selection. Since the jaws and teeth are so unstable in their development they are easily affected.

The influence of the complex sociologic state on civilization, while not having the malign influence ascribed to it, has, by its economy as regards food production and preparation, lessened markedly the functions of the jaws and teeth. Food no longer needs the grinding and tearing required from primitive man or even types as high as the "pile dwellers," whose food is still to be found even to coarse breads and cakes. Under the law of economy of growth, lessened muscular action leads to lessened blood supply. Lessened blood supply produces conditions in the offspring tending to under-nutrition of certain parts for the benefit of the body as a whole and to diminish in size unused parts. As the jaws, alveolar process and teeth are comparatively unstable in all mammals, these of necessity would be peculiarly affected by disuse. A very similar evolution is occurring in the dog in whom domestication plays the part of civilization and who from a carnivore has become an omnivore. In the mongrel dog, race admixture and other factors producing change in man are to be found. In him, peculiarly, domestication would play the part of civilization. In the jaw and tooth irregularities ascribed to other causes occur. Facility for securing food under domestication has played a part. Disuse of the jaws as a weapon by man has done its share in the changes com-

paratively early in development. To a certain extent this last change is still going on in the dog. In cases predisposed to advance in evolution, irregularities of beneficial type would occur with great facility. In cases predisposed in the opposite direction changes would result of opposite effect.

Irregularities of the jaws and teeth increase proportionately westward from Greece to the British Isles, the rate in the British Isles being greatest. Greece, however, no longer contains the race, which so long dominated the world intellectually. The people are a mixed Slavo-Mongoloid race who speak Greek. Furthermore as the correctional, charitable and hospital arrangements are primitive, the defective classes are not accumulated. Under such conditions a certain seeming decrease in stigmata of degeneracy must result. This, however, would extend more to deeper stigmata than to those of the jaws and teeth. Degenerate jaws and teeth are commonest next to the English speaking people among the Scandinavian speaking. As both have passed through very similar phases of race evolution and both contain at bottom the same race elements, this was to have been expected. As I have pointed out some years ago, the struggle for existence between the organs, dependent on race evolution and race admixture, has resulted in the higher races in the triumph of the brain and skull at the expense of the face, hence, the higher the intellectuality the greater the tendency to local degeneracy of the face, jaws and teeth.

THE DEVELOPMENT OF THE SEXUAL INSTINCT.

By HAVELOCK ELLIS, M. D.,

LELANT CORNWALL, ENGLAND.

Honorary Fellow of the Chicago Academy of Medicine, Etc.

IT is a very remarkable fact that although for many years past, serious attempts have been made to elucidate the psychology of sexual perversions, little or no endeavor has been made to study the psychologic development of the normal sexual emotions. Nearly every writer seems either to take for granted that he and his readers are so familiar with all the facts of normal sex psychology that any detailed statement is altogether uncalled for, or else he is content to write a few introductory phrases, mostly made up of extracts from anatomic, philosophic, and historical work.

Yet it is unreasonable to take normal phenomena for granted here as in any other region of medicine. A knowledge of such phenomena is as necessary here as physiology is to pathology or anatomy to surgery. So far from the facts of normal sex development, sex emotions, and sex needs, being uniform and constant, as is assumed by those who consider their discussion unnecessary, the range of variation within fairly normal limits is immense, and it is impossible to meet with two individuals whose records are nearly identical.

There are two fundamental reasons why the endeavor should be made to obtain a broad basis of clear information on the subject. In the first place the normal phe-

nomena give the key to the abnormal and the majority of sexual perversions, including even those that are most repulsive, are but exaggerations of instincts and emotions that are germinal in normal human beings. In the second place what is normal cannot be determined until the sexual life of a large number of healthy individuals is known, and until the limits of normal sexuality are known, the physician is not in position to lay down any reasonable rules of sexual hygiene.

On these grounds I have for some time sought to obtain the sexual histories, and more especially the early histories, of men and women who on *prima facie* grounds, may fairly be considered, and by themselves and others are so considered, ordinarily healthy and normal. There are many difficulties about such a task. Difficulties which are sufficiently obvious. There is, first of all, the natural reticence to reveal facts of so intensely personal a character. There is the prevailing ignorance and unintelligence which leads to the phenomena being obscure to the subject himself. When the first difficulty has been overcome and the second is nonexistent, there is still a lack of sufficiently strong motive to undertake the record, as well as a failure to realize the value of such records. I have been promised and even offered many histories which have never reached me. Still I have obtained a certain number, some of them exceedingly valuable and instructive and I hope to obtain still more. In the present paper I bring forward eight such histories (four from individuals of each sex) selecting them as fairly varied and typical. Two of the cases, it will be seen, begin narrowly to reach (whether temporarily or permanently cannot be said) the abnormal (Histories IV and VIII); they represent the transition of pathologic sex phenomena.

HISTORY I. E. T. T's earliest recollection of ideas of a sexual character are vaguely associated with thoughts upon whipping inflicted on companions by their parents, and sometimes upon his own person. About the age of seven, T. occasionally depicted to himself the appearance of the bare nates and genitalia of boys during flagellation.

Reflections upon whipping gave rise to slight curious sensations at the base of the abdomen and in the nerves of the sexual system. The sight of a boy being whipped upon the bare nates caused erection before the age of nine. He cannot account for these excitations, as at the time he had not learned the most rudimentary facts of sex. The spectacle of the boy's nudity had no attraction for him while the beating aroused his indignation against the person who administered it. T. knew a boy and girl of about his own age whose imagination dwelt somewhat morbidly upon whipping. The three used to talk together about such chastisement and the little girl liked to read "stories that had whippings in them." None of these children delighted in cruelty; the fascination to them of castigation seemed to be in imagining the spectacle of the exposed nates. Actual witnessing of the whipping made them angry at the time.*

Accustomed to watch a young sister being bathed, T. had no distinct curiosity concerning the differences in the sex until the age of nine. About this time he asked his father where babies came from and was told to be quiet. When he persisted in the enquiry his father threatened to box his ears. His mother told him subsequently that doctors brought babies to mothers. He credited the story so far as to watch carefully the doctor who came when his mother "was going to have a new baby," in the hope of seeing a bundle in his arm. T. was nine when he interrogated a servant girl of sixteen about babies and their origin. She laughed and said that one day she would tell him how children came. One Sunday this servant took T. for a country walk and initiated him in *membrorum conjunctionem* telling him he was too young to be a father but that was the way babies were made. The girl took him into the field saying she would show him how to do

*J. G. Kiernan has described a case in which (ALIENIST AND NEUROLOGIST 1891) a boy of six found it a peculiar pleasure in throwing little girls down and spanking their nates. A case described by W. A. Hammond (Impotence) throws some light on the case described above and Kiernan's case. A twelve year old boy was severely flogged which flogging produced sexual sensations and prolonged erection. Presuming a simular condition purely subconscious as to its knowledge of the nature of the sensation to have occured, it will be readily understood how pleasure of sexual sub-conscious origin should associate itself with the idea of whipping.

something which would make him feel as though he were in heaven, informing him that she had often done this with young men. She then provoked genital excitation and instructed him how to proceed. His feeling at the time was one of disgust; the appearance and odor of the female genitalia repelled him. (Afterwards though he wished to repeat the experience with girls of his own age.) Finding the boy unresponsive, the girl embraced him *more masculinae* with great passion. T. can recall the expression of the girl's face, the perspiration on her forehead and the whispered query whether it pleased him. The embrace lasted for ten minutes when the girl said it had done her good. Later the same day they met a girl cousin of this servant about twelve years old. The three went to a lonely part of the seashore. The servant there suggested that T. should repeat the act with the little girl. T. was too shy though the girl was quite willing and experienced. The elder girl told the younger to keep watch a few yards away, while she again brought about *membrorum conjunctionem* with T., *more masculinae*. The servant told T. not to tell anyone. Intercourse with the servant was never repeated after that day and from shame he kept the promise.*

After this episode T. began to speculate about sexual matters and to observe the coupling of dogs with newly acquired interest. At ten years he often lay awake, listening to a woman twenty-five singing to a piano accompaniment. The woman's voice seemed very beautiful and so strongly impressed him, that he fell in love with her and longed to embrace her sexually. This second attachment was much more romantic than sensual though the idea of embracing the woman seemed to T. a natural part of the

*It is evident that servant girls and nurses play a very large part in sexual initiation of boys. An experience almost identical with the above is recorded in History IV. Lawson Tait states ("Diseases of Women") that in every case where he has found a number of children to be affected with masturbation, the contagion has been traceable to a servant girl. W. A. Hammond has observed the case of a man whom at the age of seven, a servant girl taught masturbation and with whom she frequently attempted *membrorum conjunctionem* Andrieux, Blach, Garnier (Onanism 1890) and Deslandes (Onanism 1835) state that it is not rare for nurses to quiet children under three by sexual manipulation *per os*. French of St. Paul Minn., (Medical Standard Vol. II.) E. C. Spitzka and other American physicians have reported similar instances from the United States. They have also been noted in Germany and Italy.

romance. He was beginning to invest the sex with angelic qualities. The thought of his adventure with the servant no longer caused repulsion but rather pleasure. He reflected that if he could meet the girl now, he could be very fond of her and understand things better. At this time he had not masturbated nor even heard of the practice. One day, while playing with a girl of his own age he succeeded in overcoming her shyness and induced her to expose her genitals, at the same time uncovering his. On this occasion and once afterward he succeeded in *membrorum conjunctionem*. Both he and the girl experienced imperfect enjoyment.

At boarding school where he was sent at ten T. learned the vulgar phrases for sexual organs and sexual acts, and acquired the habit of moderate masturbation. Coarse talk and indecent jests about the opposite sex were common amusements of the play room and dormitories. At first obscenity was very distasteful; later he became more used to it but thought it strange that sex intimacy should be a subject for ridicule and jest.

He began to read love stories and think much about girls. He learned the nature of "fornication" and wondered why it should be considered so heinous. Parts of the Bible condemning intercourse between the unmarried alarmed him. Being of a serious as well as emotional and amorous nature, he became converted to evangelic belief. His mother warned him to beware of unclean companions at school. He tried to act as a Christian and think only pure thoughts about women. The talk however was always of girls and of being in love. His mind was often engrossed with amatory ideas of a poetic, sensuous nature; his sexual experiences having a firm hold on his imagination as they gave him gratifying assurance of actual knowledge concerning things merely imagined by most of his companions.

His health was vigorous and he keenly enjoyed all outdoor games and excelled in daring and school boy mischief.

At twelve he fell deeply in love with a girl of corresponding age. He never felt any powerful sexual desire for

his sweetheart and never attempted anything but kissing and decorous caresses. He liked to walk and sit with the girl, to hold her hand and stroke her soft hair. He felt deeply grieved when separated from her. His thoughts of her were seldom sensual. A year or so afterwards he had a temporary passion for a woman of thirty who used to flirt with him and allow kissing. T. thought her queenlike and very lovely and wished to be her knight.

One day he saw for a moment in a friend's house, a dark, earnest-looking girl of thirteen who made a very deep impression upon him, and though he did not exchange a word with her, he often thought about her afterwards. Five years later he met the dark girl again and the pair were mutually drawn to one another. He proposed marriage and avowed a most desperate passion. A refusal on the plea of youth caused him the deepest misery. About eight years thereafter T. married the girl and the marriage proved a very happy one.

When fifteen T. made the acquaintance of a pretty blonde of the same age. She was a high spirited hoiden. They were soon close friends and later lovers. They wrote a number of letters to each other and exchanged locks of hair and presents. Their talk about love was unsensual. One day the blonde told T. that she had been sexually embraced by a former lover; a boy of sixteen, hinting very plainly that she would like T. to embrace her. This amour lasted for about six months. The lovers had many opportunities for clandestine intercourse. They used to consummate their passion in a part of a wood they called "the bower." Now and then one or the other would experience a pricking of conscience but they were too passionately attached to each other to sever the intimacy. At length the girl began to dread the risk of conception and the intercourse ceased. Looking back upon this episode T. avows that the attachment and its physical expression seemed quite natural, poetic and beautiful, though at times his religious principles condemned his conduct. He now thinks that the experience is by no means to be regretted either by the girl or himself. It was a wholesome youth-

ful passion, as innocent as the mating of birds and the insight which it gave both of the hidden conditions of human nature was morally advantageous in after life.

In T's opinion his amative precocity was due to the early awakening of sex feeling by the servant girl. But he also believes that the love passion would have asserted itself early in any event since he inherits a warm temperament, had erectal power long before puberty and has considerable seminal capacity. Having closely watched the suppressed normal conditions and desires in youth at the time of pubescence, he maintains that such suppression is disastrous, causing unhealthy thoughts and leading to the formation of a habit of masturbation which may persist throughout life. He believes that temporary sexual intimacies between boys and girls under twenty from the period of puberty would be far less harmful than separation of the sexes till marriage, with its resultants, masturbation, hysteria, repressed and disordered functions in young women, seduction, prostitution, venereal affections and many other evils.

HISTORY II. I can remember "writes the subject" trotting away as a youngster about five with another to "see a girl's legs;" the idea emanated from the other boy but I was vaguely interested. How or where we were going to see the object in question I do not remember nor anything further than the intention. When six or seven I remember being put to bed with the nurse girl and feeling her bare arm with undoubted sexual excitement; I remember feeling along the arm very cautiously, fearing the girl would wake and being bitterly disappointed to find it was merely the arm. I had then no idea of sex but the disappointment was actual.

When about nine I had other experiences of the sort. I used to herd cows on the links on the north coast of England which had then very few visitors and seemed to be very remote. I lived in a farm house and used to assist the girls of that farm house and a neighboring one in looking after young cattle. These girls certainly instilled sexual ideas though I did not realize them with precision. They

used to talk about things a good many of which I did not then understand as they did. I liked to see these girls wading with their dresses tucked up. About this time I fell passionately in love with a girl cousin, but do not remember having any sensual ideas in regard to her. I cannot say that these early experiences had any influence on my later sexual development; I have always remembered them vaguely.

Sexual dreams took place first at the age of thirteen; there was then an emission and sensation in sleep. These were however not associated with distinctly sexual ideas. All that I recall after them was the sensation which however, I did not absolutely localize. Masturbation was undoubtedly the direct result of these dreams. It was tried at first tentatively out of curiosity to determine if the sensation of the dream could be so reproduced. Sexual dreams occurred frequently although I cannot say at what interval. I have never experienced the slightest attraction for the same sex.

HISTORY III. "My maternal grandfather (writes the subject of his history)" was a small farmer who kept a few beagles and grey hounds for hare hunting. He had three daughters; one of whom became my mother. One of his drunken sporting companions seduced my mother at the age of twenty. When her condition was discovered she had to flee from the violence of her father and I was born some distance from her home. After my grandfather's death I was reared by my grandmother and saw nothing of my mother until I was nearly sixteen.

I believe that in my heredity the transmission comes chiefly from my mother, who is now fifty-eight years old. Although her life has been blameless in every particular since her youthful indiscretion, she has never gotten over it. I feel in my character a reflection of her over-strung condition during pregnancy.

I can distinctly remember from the age of nine years and am sure that I had no sexual feelings before the age of thirteen though always in the company of girls. I had many boyish passions for the girls always older than myself but

these were never accompanied by sexual desires. I deified all my sweethearts and was satisfied if I got a flower, a handkerchief or even a shred of clothing of my inamorata for the time being. These things gave me a strange idealistic sensation but caused no sexual desire or erection. At thirteen a twenty-six year old sister of a boy companion so sat down on a sheaf of corn as to expose the *mons veneris* and enticed me to *membrorum conjunctionem*. There was slight erection and after the act had been continued some time, a pleasurable sensation of ejaculation but without true emission. I had frequent relations with this woman thereafter.

About this time the farm servant of a neighbor taught me masturbation. The mistress of this man, a thin, willowy, dark woman, the mother of several children, treated me with such complete indifference as to urinate in my presence so that I once saw her very hirsute *mons veneris*. From that moment I conceived a great passion for her and used to tremble as soon as I saw her. I had become well developed and virile.

While she was a lustful woman I never ventured to touch her. I found an extreme ecstasy in masturbating while gazing upon her clothing. This gave much greater sexual pleasure than *membrorum conjunctionem* with the ever willing sister of my school fellow. The married woman I loved best because the *mons veneris* was more hirsute.

This has always had a peculiar attraction for me. I never would go with *puellis publicis* unless I was assured the *mons veneris* was very hirsute. Never much addicted to masturbation, I derived no great enjoyment therefrom unless I had hair or part of the clothing of the woman with whom I was indulging in psychic *coitus*.

At sixteen I left school and went to a large city to learn a business. At this time the sexual appetite was very strong. I frequently had *membrorum conjunctionem* with three women in one evening. I have had but few lascivious dreams. In these the phantom partner was almost invariably a dead woman. (When about eight I had been impressed by the corpse of an aunt who died at twenty-four.)

When twenty I went to London and took all the pleasure which came my way. I cared only for normal *coitus*. Offers of another type created disgust. I once allowed a woman to exhaust me sexually *per os* but felt degraded thereby. Women with whom I had become very intimate often urged me to *cunnilinguis* but I could not do it. I have practiced *coitus intermamnæ* a very few times.

At twenty-six I married a pure gentle woman after having for ten months before marriage led a life of celibacy. My wife died when I was thirty and for about eight months thereafter I lived a celibate life. Lascivious dreams sometimes occurred but I invariably awoke before ejaculation. I gave way to cravings of my strong sexual nature but never wished for anything out of the usual except *membrorum conjunctionem more canino*. A woman with marked development of the nates* had great attraction for me. Masturbation has for some time ceased but a nude woman in *æte manustuprone* with her back to me gives me great pleasure. I am as strong sexually at thirty-eight as I was at twenty. Only I never want women unless I am brought into actual contact with them and they reveal my peculiar capillary fetish of large pelvic development. I am in excellent health. Genitals are well developed, and with capillary investment to the *pubis*. My skull is dolicocephalic. I am violent and tenacious in temper, high strung, rapid in thought and action. My digestion is good, but I have a tendency to constipation. Occasionally I have a twinge of pain in the occipital region. My early views of women have changed, I no longer deify them. I have known very sensual women living at home in respectable middle class society. One in particular, a girl of eighteen after *membrorum conjunctionem* used to excite me *per os*. I have had a sweetheart who remained *virgo intacta*. Had I seduced her as I could have done, I should have lost all interest in her. I could never bear the

*The part possibly played by such notions in the development of the steatopygia of the Bushwoman and of the woman of the pre-historic race that left the ivory carvings of Bassompierre, through sexual selection of this as a secondary sexual character seems to deserve attention since as Letourneau (*Evolution de la Moralite*) points out anything but *more canino* is the subject of strict taboo among Melanesians.

presence of naked men and would never go to a public swimming bath for that reason. I regard myself as a man of abnormally strong but on the whole healthy and wholesome sexual feelings. As a rule I have *coitus* twice or oftener in one week. I am a total abstainer and never could embrace a woman who smelled of drink.

HISTORY IV. The subject, (a forty-year-old widower) states that when about ten, a boy friend informed him that the latter's sister uncovered his person with which she played and encouraged him to do the like to her. He said it was great fun and suggested they take two of the subject's sisters into an old barn and repeat the experience. This was done. *Membrorum conjunctionem* was attempted but despite the willing assistance of the girls, no pleasure or unusual sensation resulted.

Later at school he learned masturbation from a boy. He did not experience any pleasure but liked the boys attention and enjoyed *manipulatio genitalia pueris*. His virile organ was large and was copiously capillary hirsute. He was surprised at the boy's having the emission resulting but more when in himself after repeated attempts by so the boy and himself, *no emissio seminis* though pleasurable sensation resulted.

When he went home for the holidays, he took a great interest in and felt the servant girl's legs as she ran up stairs. She kissed and fondled him, calling him sweetheart. One day she called him into her room where she, being in a half dressed condition, laid herself upon him kissing him passionately on the mouth. She next fondled his genitals *per os* and directed his *manus ad vulva*. Much excited, and trembling violently he secured for her an orgasm. Frequently after this followed *membrorum conjunctionem*.

On return to school be practiced mutual masturbation with school fellows and at fourteen had his *minus enunis virilis* and was greatly pleased also with *capillous veneris*. He loved lying in the arms of another boy, fondling and being fondled. With mutual masturbation there was also *coitus interfemora*.

After leaving school masculine relationships were neither formed nor desired. He passed much of his time either enjoying or planning to enjoy love passages with women. The sight of a woman's limbs or bust, especially if partly hidden by pretty underclothing, and the more so if seen by stealth, was sufficient to create a lustful feeling and violent erection, accompanied by palpitation of the heart and throbbing in the head.

He had frequent *coitus* and regular masturbation at seventeen. He liked *manustrupratio puellae* even more than *membrorum conjunctionem*. This was especially the case with girls who had never masturbated. He loved to see the look of surprised pleasure appear on their faces, from the delightfully novel orgasm. Dozens of girls in good social position permitted this liberty. He entered upon an occupation which gave him frequent opportunities for sexual relationships.

At twenty-five he married the daughter of an officer with fully developed figure and very amorous. Whilst engaged they passed hours practicing mutual masturbation. He would osculate her *more colombo*, resulting in *emissio masculinum* and *climax feminii*. They practiced *coitus variæ bis die*, enciente sequella.

During this interval he went to stay at the house of an old school fellow who had been one of his lovers. On one occasion he was obliged on account of scanty accomodation to share the room with his friend. The sight of his friend nude caused *excitatio sexualis* and both passed the remainder of the night together in *manustrupatio mutualis et coitus inter femora*. He was surprised to find how much he preferred this to marital relations. The friends passed a fortnight together. Though he afterwards returned to his wife he never took the same pleasure in her. He devoted himself after she died, to the school friend. His death caused the subject to lose all interest in life. The subject (writes the well known alienist to whom I am indebted for the above history) is fairly healthy in appearance, somewhat neurasthenic and with a tendency to melancholia. The genitalia are large. There is wasting of one testicle.

Pubic hair is abundant. The body is of distinctly masculine type. The patient is neurotic. He improved under treatment and after three professional consultations wrote out the above history and came no more.

HISTORY V. The following narrative was written by a married lady. "My mother (herself a very passionate and attractive woman) recognized the difficulty of English girls getting satisfactorily married and determined if possible to shield us from disappointment by turning our thoughts in a different direction. Theoretically the idea was perhaps good, but in practice it proved useless. The natural desires were there. Disappointment and disillusion followed their repression none the less surely for having altered their natural shape. I think the love I had for mother was almost sexual as to be with her was a keen pleasure and to be long away from her an unendurable pain. She used to talk to us a good deal on all sorts of subjects but she never troubled about education in the ordinary sense. When nine years old I had been taught nothing except to read and write. She never forbade us to read anything, but if by accident we got hold of a book of which she did not approve she used to say "I think that is rather a silly story, don't you?" We were so eager to come up to her standard of taste that we at once imagined we thought it silly too.

In the same way she discouraged ideas about love or marriage not by suggesting there was anything wrong or improper about them but by implying great contempt for girls who thought about lovers, etc. Up to the age of about twenty I had a vague general impression that love was very well for ordinary women but far beneath the dignity of a somewhat superior person like myself. To show how little it entered my thoughts I may add that up to seventeen I fanced a woman got a child by being kissed on the lips by a man. Hence all the fuss in novels about the kiss on the mouth.

When I was nine years old I began to feel a great craving for scientific knowledge; "A Child's Guide to Science" which I discovered at a second hand book stall

(and which by the way informed me that heat is due to a substance called calor,) became a constant companion. In order to learn about light and gravitation I saved up my money and ordered, (of all books) Newton's "Principia;" shedding bitter tears when I found I could not understand a word of it. At the same time I was horribly ashamed of this desire for knowledge. I got such books as I could surreptitiously and hid them in odd corners. Why I cannot imagine as no one would have objected but on the contrary I should have been helped to suitable books.

My sisters and I were all violently argumentative but our quarrels were all on abstract subjects. We saw little of other children and made no friendships preferring each other's society to that of outsiders. When I was about ten, a girl of the same age came to stay with us for a few days. When we went to bed the first night, she asked me if I ever played with myself whereupon I took a great dislike to her. No sexual ideas or feelings were excited. When still quite a child however, I had feelings of excitement which I now recognize as sexual. Such feelings always came to me in bed (at least I cannot remember them at any other time) and were generally accompanied by a gradually increasing desire to make water. For a long time I would not dare to get out of bed for fear of being scolded for staying awake and only did so at last when actually compelled. In the meantime the sexual excitement increased also and I believe I thought the latter was the result of the former or perhaps rather that both were the same thing. (This was when I was about seven or eight years old). So far as I can recollect the excitement did not recur when the desire to make water had been gratified. I seemed to remember wondering why thinking of certain things (I can't remember what these were) should make one want to urinate. In later life I have found that if the bladder be not emptied before *coitus*, pleasure is often more intense. As a child and girl I had very strong religious feeling (I should have now if I could believe in the reality of religion) which was absent in my sisters. These feelings were much the same as I experienced later sexually, (I feel towards God

what I imagined I should like to feel to my husband if I married.) This I fancy is what usually occurs. At fourteen I went to a boarding school where there were seventy girls between seven and nineteen. I think it goes to show that there is very little sexual precocity among English girls since, during the three years I stayed there I never heard a word to which the strictest mother would have objected.* One or two of the older girls were occasionally a little sentimental but on no occasion did I hear the physical side of things touched upon. I think this is partly due to the amount of exercise we took. When picturing my childhood I always see myself racing about, jumping walls, climbing trees. In France and Italy I have been struck by the greater sedateness of Continental children. Our idea of naughtiness consisted chiefly in having suppers in our bedrooms and sliding down the bannisters† after being sent to bed. The first gratified our natural appetite while the second supplied the necessary thrill in the fear of being caught.

I made no violent friendships with the other girls but I became much attached to the French governess. She was thirty and a born teacher, very strict with all of us, and doubly so with me for fear of showing favoritism. But she was never unjust and I was rather proud of her severity and took certain pleasure in being punished by her; the punishment always taking the form of learning by heart, which I rather liked doing. So I had my thrill, excitement, I don't quite know what to call it, without any very great inconvenience to myself. Just before we left school the sexual instinct began to show itself enthusiasm for art with a capital A, Ouida's novels being mainly responsible. My mother and I agreed that we would spend our lives traveling about France, Italy, and the Continent generally *a la*

*According to J. G. Kiernan girls with whom the sexual consciousness is dormant during puberty, sexual topics are instinctively avoided by those women in whom sexual feeling has penetrated consciousness. Girls of the first type draw diametrically opposite pictures of sexual consciousness in boarding schools and colleges to those drawn by the second.

†Grasping bannisters between the thighs however has often been the first means of bringing about sub-conscious sexual sensations. Stefanowsky reports a case (ALIENIST AND NEUROLOGIST 1893) where climbing a gymnasium pole had that effect. Beard and Rockwell (Sexual Neurasthenia page 151) report the case of a seven year old boy who when climbing trees had what he afterwards knew to be sexual sensations of pain and pleasure so intermingled as to force him to abandon tree climbing.

Tricotrin with a violin in one pocket and a Stavante Dante in the other. To do this satisfactorily to ourselves, we must be artists and I resolved to go in for music and become a second Liszt. When my father offered to take us to Italy, the artist's Mecca, for a couple of years we were wild with delight. We went and disillusionment began. It may perhaps seem absurd but we suffered actually that first summer. Our villa was quite on the beach, the lowest of its flight of steps being washed by the Mediterranean. At the back were grounds which seemed a paradise. Long alleys covered over with vines and carpeted with long grass and poppies, grassy slopes, dotted with olives, and ilex, roses everywhere and almost every flower in profusion; with at night, the fire flies and the heavy scents of syringa and orange blossoms. In the midst of every possible excitement to the senses, there was one thing wanting and we did not know what that was. We attributed our restlessness and dissatisfaction to the slow progress in our artistic education and consoled ourselves by thinking when once we had mastered the technical difficulties we should feel alright. And of course we did derive a very real pleasure from all the beauties of art and nature, with which Italy abounds.

It seems to me however that the art craze is one of the modern phases of woman's sexual life. When we were in Italy the great centers of the country were simply overrun with girls studying art, most of whom had very little talent but who had mistaken the restlessness due to the first awakening of the sexual instinct for the divine flame of genius. In our case it did not matter as we were not dependent upon our own exertions. But it must have been terribly hard for girls who had burned their boats and chosen art as a career to have added to the repression of their natural desires, the bitterness of knowing that in their chosen walk of life, they were failures. The results as far as work goes might not be so bad if the passions, as in men, were occasionally gratified. It is the constant drudgery combined with the disappointment and finding that art alone does not satisfy which is so paralyzing. Besides

gratification is always followed by exaltation of the mental faculties with, in my experience, no depressing reaction such as follows pleasure excited by mental causes alone.

At one time when living at the villa I met a man about forty-five who took rather a fancy to me but I only saw him once and forgot all about him. Some time later at Florence I got a letter saying he was passing through and would call with my permission. Now to be sought out by a man with a string of names ending in io and a was delightful not because he was a man—no Englishman or German would have done—but because of his connection in one's mind with the artistic ideal. Well he came and after some(to me)very uninteresting conversation, he began to what we then called "talk nonsense," and things came to a climax by me exclaiming: "If I had expected you to talk like that I would not have received you." "Well what did you expect me to talk about!" "O, vaguely," "about poetry, art or music." I shall never forget his amazed look and the tone of surprise in which he echoed "about music." I mention this incident because it woke me up; no emotion was excited but I realized for the first time (I must have been nearly twenty) that I was no longer a child and that a man could think of me in connection with love. It was only after this and not immediately after either, that men's society began to have an interest for me and that I began to think a man's love would be a pleasant thing to possess after all.

The sexual instinct at any rate as regards consciousness thus developed slowly and in what I believe to be a very usual sequence. Religion, admiration for an older woman and art. I am not sure that I have made quite enough of the first, yet I do not know that there is any more to say. There were very strong physical feelings connected with all these which were identical with those now connected with passion but they were completely satisfied by the mental idea which excited them.

The first time I can remember feeling keen physical pleasure was when I was between seven and eight years old. I can't recollect the cause but I remember lying quite

still in my little cot clasping the iron rails at the top. It may be said that this is hardly slow development but I mean slow as regards any connection of the idea with a man or any physical means of excitation.

I have laid stress on my desire for knowledge as I think my sexual feelings were affected by it. A great part of my feeling for my mother was due to the stories of information she appeared to possess. The omniscience of God was to me his most striking attribute. My French teacher's capacity was her chief attraction. When as a girl, I thought of marriage, I desired a man who "could explain things to me." One learns later to live one's mental and sexual life separately to a great extent. But at twenty I could not have done so; given the opportunity I should have made the mistake of Dorothea in "Middlemarch."

I have spoken of the depressing after-effects of pleasure brought about by a purely mental cause but I do not think this is the case in childhood and early youth. (Perhaps some women feel no such depression afterwards which may account for their coldness in regard to men.) This may be accounted for by the fact that it occurs much more rarely and also it is perhaps a natural process before the sexual organism fully develops and so not harmful.

I always find it difficult in expressing the different degrees of physical excitement even to myself though I know exactly what I felt. As a child, from the time of the early experience already mentioned (about the age of seven or eight) and as a young girl, the second stage (secretion of mucus) was always reached. The amount of secretion has always been excessive, but at first secretion only lasted a short time; later it began to last for several hours, or even sometimes the whole night, if the natural gratification has been withheld for a long time(say three months). I do not remember ever feeling the third stage (complete orgasm) until I saw the first man I fancied I cared for. I do not think that mental causes alone have ever produced more than the first two stages (general diffuse excitement and secretion). I have sometimes wondered whether I could produce the third mechanically but I have a curious innate

intense repugnance to trying the experiment. It would seem to materialize it too much. As a child and a girl I was contented to arrive at the second stage possibly because I did not realize that there was any other and perhaps this is why I have experienced no evil results.

In dreams the third stage seems to come suddenly without any leading up to it either mental or physical of which I am conscious. I do not however remember having any such dreams before I was engaged. They came at a later period even then. When great pleasure was experienced, it came as a rule suddenly and sharply with no dreams leading up to it. The dreams generally take a sad form (an Evangeline and Gabriel business) where one vainly seeks the person who eludes one. I have however sometimes had pleasurable dreams of men who were quite indifferent to me and of whom I never thought when awake. The impression on waking is so strong one could almost fancy one's self really in love with them. I can quite understand falling in love with a person by dreaming of them in this way.

The first time I remember experiencing a third stage in waking moments was at a picnic, when the man to whom I have before referred as the first that I fancied I cared for, leaned against me accidentally in passing a plate or dish, but I was already in a violent state of excitement at being with him. There was no possibility of anything between us as he was married. If he guessed my feelings they were never admitted as I did my best to hide them. I never experienced this except at the touch of some one I loved. (I think the saying about the woman "desiring the desire of the man," is just about as true as most epigrams. It is the man's personality alone which affects me. His feelings toward me are of, I was going to say indifference, but at any rate quite secondary importance and the gratification of my own vanity counts as nothing in such relations.)

As a rule to reach even the second stage the exciting ideas must be associated with some particular person except in the case of a story, where one identifies one's self

with one of the characters. In childhood and early youth it was in the case of religion the idea of God and the presence and the personality of God which aroused my feelings and always seemed very vivid to us. In the case of my governess, my feelings were aroused in exactly the same way as later they would be by one's lover. In the art craze I am rather vague as to how it came about, but I think as a rule there was rather a craving for pleasure than pleasure itself. I do not remember ever thinking much about the physical feeling. It seemed so natural that a pleasant emotion should produce pleasant physical effects as that a painful one should cause tears. As a child one takes so much for granted and later on, my mind was so much occupied with worrying about the truth of religion that I hardly thought enough about anything else to analyze it carefully.

I may summarize my own feelings thus: First, exciting ideas alone, produce, as a rule, merely the first stage of sexual excitement. Second, the same ideas connected with a particular person will produce the second stage. Third, the same may be said of the presence of the beloved person. Fourth, actual contact appears necessary for the third stage. If the first stage only be reached the sensation is not pleasurable in reality or would not be but for its associations. If produced, as I have sometimes found it to be, by a man of mental incapacity it is distinctly disagreeable, especially if one feels that the energy which might have been used in coping with the difficulty is being thus dissipated. If it be the result of physical restraint, it is also unpleasant unless the restraint were put upon one by a person one loves. Then however the second stage would probably be reached but this would depend a good deal on one's mood. If the first stage only were reached, I think it would be disagreeable, it would mean a conflict between one's will and sexual feeling. Perhaps women who feel actual repugnance to the sexual act with a man they love, have never gone beyond the first stage when their dislike to it would be quite intelligible to me.

Some time after the life in Italy had come to an end I became engaged. There was considerable difficulty in the way of marriage but we saw a good deal of each other. My *fiancé* often dined with us and we met every day. The result of seeing him so frequently was, that I kept in a constant state of strong but suppressed sexual excitement. This was particularly the case when we met in the evening and wandered about the moonlit garden together. When this had gone on about three months I began to experience a sense of discomfort after each of his visits. The abdomen seemed to swell with a feeling of fullness and congestion but though these sensations were closely connected with the physical excitement, they were not sufficiently painful to cause me any alarm or make me endeavor to avoid their pleasurable cause. The symptoms got worse and no longer passed off as quickly as at first. The swelling increased, considerable pain and a dragged down sensation resulted, the moment I tried to walk even a short distance. I was troubled with constant indigestion, weight in the chest, pain in the head and eyes, continual slight diarrhœa. This went on for about nine months and then my *fiancé* was called away from the neighborhood. After his departure I got a trifle better but the symptoms remained, but in less acute form. A few months later, the engagement was broken off and for some weeks I was severely ill with influenza and was on my back for several weeks. When I could get about a little, though very weak, all the swelling was gone but pain returned whenever I tried to walk or stand for long. The indigestion and diarrhœa were also very troublesome. I was treated for both by a physician without success. Next year I became engaged to my husband and was shortly after married. The indigestion and diarrhœa disappeared soon after. The pain and dragging feeling in the abdomen bothered me much in walking or any kind of exercise. One day I came across a medical work "The Elements of Social Science" in which I found descriptions of symptoms (like those I suffered from) ascribed to uterine disease. I again applied to a physician telling him I thought there was displacement and possibly

congestion. He confirmed my opinion and told me to wear a pessary. He ascribed the displacement to the relaxing climate and said he did not think I could get well again. After the pessary had been placed in position every trace of pain, etc., left me. A year later I thought I would try to do without the pessary and to my great satisfaction none of the old trials came back after its removal in spite of much trouble, anxiety, sicknursing and fatigue.

I attributed the disorder to violent sexual excitement which was not permitted its natural gratification and relief.

I have reason to believe that suppression acts very injuriously on a woman's mental capacity. When excitement is naturally relieved the mind turns of its own accord to another subject, but when suppressed it is unable to do this. Personally in the latter event, I find the greatest difficulty in concentrating my thoughts and mental effort becomes painful. Other women have complained to me of the same difficulty. I have tried mechanical mental work such as solving arithmetic or algebraic problems but it does no good, in fact it seems only to increase the excitement. (I may remark here that my feelings are always very strong not only before and after the monthly period but also during the time itself; very unfortunately as of course they cannot then be gratified). This only applies to desire from within as I am strongly susceptible to influences from without at any time.

(*To be continued.*)

THE LEGAL DISABILITIES OF NATURAL CHILDREN JUSTIFIED BIOLOGICALLY AND HISTORICALLY*

By E. C. SPITZKA, M. D.,
NEW YORK.

91 In addition to internecine conflicts, where the assailant was a bastard brother of the victim. in some cases like those in the text, also illegitimate, there are a number of historical feuds between contestants not related to each other, but both illegitimate in birth. Amorgas a natural son of Pisuthnes, endeavored to revolt a province against Darius nothus; John X. Victor of Lincoln, (A. D. 1139,) Robert Earl of Gloucester, was assassinated by Sergius III and Marozia; the last Ordelaffis—all illegitimate—were crowded out of Forli by the greater shark, Girolamo Riario. When the Vicos—also and exclusively represented by bastards—fell out amongst themselves, a bastard seized the opportunity and Viterbo, their patrimony; Archelaus, adulterinus of Mithridates, fell against the Consul Gabinius who battled in behalf of Ptolemy *Nothus*. The whirligig of politics brought two natural sons of Charles II into the field against each other, as the Phillips Norton skirmish which preceded Sedgemoor's slaughter. A few exceptions are to be noted where a bastard suffered assassination or its essay at the hands of legitimate relatives. The death of Artaxerxes, not to be confounded with the illegitimate Sassanid hereinbefore mentioned (A. Muemon was the son of a nothus, however, of whom the first of the name A. Longimanus was father), was hastened by the death of his favorite Arsames, a popular and beautiful son born in concubinage and slain by a legitimate son, Ochus. So was the assassin of Prefect Sylvestro di Gatti, Fasciolus Vico, slain by a legitimate (?) brother; and the envy of Julius Este's "beautiful eyes" caused an attempt at his life by jealous Cardinal Hippoytto, a legitimate Este. The death of the bastard of Polignac at the hands of Charles VI of France, was in consequence of the latter's first outbreak of insanity, and may hence be regarded as fortuitous. Other innocent victims of assassination or judicial murder were Candidianus (Gibbon *op. cit*),

*Continued from April, 1901. Notes referred to in text of preceding numbers.

Massiva, Pericles (Note 43) (*in consequence of his victory* at the Arginusae); the former, a cruel and unprovoked felony; the latter perhaps the most scandalous instance of priest-ridden mob brutality, not excepting the death of Socrates, on record. Of most such victims, however, it may be said as of the real Dimitri, who showed every indication of becoming a second Iwan the Terrible or Drusilla (Note 56) their removal was anything but a disaster to mankind at large. Considering the fruition of imperial adulterines like Commodus, Carracalla and Elagabalus, one is not over-regretful that the career of Tiberius, *adulterinus* of Sejanus and Drusus' wife, was cut short. Of Lais murder by the Thracian women, romance has made the cause jealousy of beauty of this daughter of Timandra (Theodata. Xenophon, in introducing her to Socrates, names this paramour of and chief mourner for Alcibiades). The statement in the October number of the ALIENIST AND NEUROLOGIST anent singularity of murder of a bastard child by the father is not strictly true with regard to Pelham's edition. A second, the Horne case, came to my knowledge since writing. Wm. Horne starved his infant to death in 1724. An unlucky observation he made in a quarrel recalling some suspicious circumstances, search revealed the remains; and after trial and sentence the capital penalty was inflicted in 1759, thirty-five years later. This contrast with the issue of the Sheen trial is—in all its circumstances—drastic. In this case the parental liaison had been incestuous, which fact constituted the motive for the murder.

92 These be indeed "brave words" of Macaulay's in his essay on Machiavelli; he speaks of Borgia as one "who emerged from the sloth and luxury of the Roman purple the first prince and general of the age." We have seen that the generalship consisted—like the distinguished commander's Washington Irving gives to Fort Casimir—in sieges, or in following superior armies in the hope of sharing plunder. The "greatest general of the age" was never present at a pitched battle, and although he fell in war—it was at a siege also. The height of strategy—from a Machiavellian point of view—was reached when he induced the Duke of Urbino to lend him his troops as auxiliaries pretended to be required against a third party, then instantly turning these very auxiliaries against his ally, forcing him to fly, then plundering his palace to the very library. The next achievement in order of brilliancy Machiavelli was an eye-witness of. Caesar Borgia at Sinigaglia had his former officers strangled after their complying with his invitation under safe conduct. As to the "first prince," his governing power collapsed with the death of his father. An over-generous foe saw Caesar as a cowardly, cringing petitioner who to exculpate himself, cursed that father in his grave! The "misfortune" which overwhelmed Caesar and which "no human prudence could have averted" (Macaulay's words) is generally believed to have been a misplacing of glasses containing poisoned wine intended for two cardinals whose wealth Borgia coveted, just as he had coveted and acquired by similar hospitality that of Cardinal Ferrata and others. Alexander's dose proved fatal; Caesar's nearly so. If "human prudence" be a thing to be regretted when failing under such circumstances,

our code of morals needs rewriting. It should be borne in mind that to "emerge from the sloth of the Roman purple" Caesar found it necessary to "remove" his elder brother, Juan of Gandia, thus creating that vacancy in Alexander's affections which was a desideratum as a step to secular preferment. Juan's body was found in the Tiber, covered with numerous poniard-wounds, an episode immortalized by Pasquino.

Our historian also says of Machiavelli's subject—and it must be remembered that he is discussing a work for which admittedly "the first prince and general" stood as subject model—that "wanton cruelty was not in his nature. On the contrary, where no political object was at stake, his disposition was soft and humane." Now it is notorious that Borgia had a recess, with an aperture so constructed as to enable his observing the dying agonies of victims, as ruthlessly and as needlessly slaughtered as was the youth whose beauty Ariosto sang the praises of, and whose fate was bewept by all Faenza: Astorre Manfredi, "*i su fratello bastardo!*" As strangely contradicted by the historical fact is another characterization by Macauley. He actually speaks of "the generous heart of Clement" (another patron of Machiavelli's) whose ruinous parsimony is referred to in the sequel of the text!

Macaulay in another place touches on the subject here considered with reflections lacking but formulation to have expressed a criterion of bastard character. It is in the essay "Dryden," where he says of Shakespeare's "Hotspur." that a man might have all these qualities striking the observer, and yet not be Hotspur, for almost every one applies equally to the bastard in King John; yet that Hotspur's speeches would "seem out ot place" in "the mouth of Falconbridge." Very true! And the key to the explanation is in the nothus opportunist and adventurer character of the latter; as contrasted with the family-loyal and honestly proud magnate's son. If the reader will turn to the thirty-sixth paragraph of the essay on Machiavelli, he will find the description of one bastard type, as true to nature as may be—and it is so, because the majority of the princes on whose character it is based, were bastards or the sons of such.

93 Anton Gindely: Geschichte des Dreiszigjährigen Krieges (History of the Thirty Years War, vol I, pp. 66-192).

94 "Life and Letters of Ogier Ghislain de Busbecq" by C. T. Forster and F. H. B. Damill.

95 A general impression on this subject I assume is represented in the communications made to me by many who heard the paper read and others who had received the reprint of the introductory part from the July number of the ALIENIST AND NEUROLOGIST. Recognition of the striking and, to thorough historical scholars, novel magnitude of bastardy in history was usually accompanied by the consoling reflection that government and society are to-day so organized, that neither the instinctive qualities of natural children nor paternal partiality could place them in a position as influential as in the days of the Borgias. If facts here related do not show that start-

ling acts have been performed and profoundly disturbed influences were being exerted by bastards during the lifetime of those reading these lines I do not know what glaring and illustrative proof is. Take this series of events: A Spanish adulterine, Montijo, of aggressively amorous propensities, petitions Queen Isabella to order a certain Toreador to become her *cavaliere servente;* another was about this time escaping from Ham under the alias of Badinguet. This fugitive in the Land of Surprises, actually became elected President of its Second Republic. As the former failed to get the Toreador, the latter failed to affect marriage alliance with princesses of ruling houses, so joining fortunes the second made the first Empress of France. Emperor he had become by effrontery, characteristic of his kind, and the aid of an intendent of the bloody tragedy accompanying the comedy, another bastard, his half-brother Morny; a third, Walewski, was to become one of his ministers (Note 18) and lobby the Suez Canal; a fourth (see Note 25) was one of his marshals; and a fifth, Girardin, became his bought over and buying press agent. A personal of the account of Hortense's son giving this package of a hundred thousand francs to one, this of half a million to another, sending one of the corrupted colonels (L'Espinasse) and the gendarmerie to abduct the more intelligent and hence "dungerous" representative within the Hall of the National Association, is like to a dream of the Borgia and Mansfeld days, or of the transactions of Perseus with the Bastarnae and against Eumence; particularly as an assassination or so was introduced (Kelch's for example) to complete the analogy. The arrest and transport to Algiers and Cayenne of patriots, may not appear to come up to the ferocious treachery of Borgia at Sinigaglia; but one may refer the question to Blanc (as one might to Dreyfus) whether, the shorter shrifts of the victims at Sinigaglia or of Astorre Manfredi and Alfons of Biseglia, were not more merciful than the tepidarium of Cayenne and the stockade of the Devil's Island, Carlyle's epigram epitomizing the history of the influence of the illegitimately born Pompadour practically reproduced in Gregorovius' word picturing of the influence of the offspring of the concubine Valdrada, would fit the achievements of the adulterine born couple occupying the Tuileries up to 1870 and satisfy union of the epigram and the word picture in their portrayal the history of important phases of the last half century could not be written without mentioning bastards in a number exceeding their census proportion, not four fold, but sixteen fold. From Magenta to Metz, and Pekin to Pueblo what names of conspirators, forgers, assassins, traitors we find are—the most prominent of them—bastards. "Plebescits" were forged for Mexico, Savoy and France itself. It is to be noted that the chief "croupier" in the Jecker swindle—which formed the pretext for the adventure culminating at Queratero—was the bastard Mexican General Almonte. No inconsiderable role have *liberi naturales* played in the history of Central and South America. Each of the Barrios brothers, in career, repeated a Borgia and Clovis; the extorted marriage of the older—half-breed as well as nothus—and the extortion murder of Aparicio by the younger are as faithful repetitions of the deeds of the latter, as the nineteenth century can be sup-

posed, capable of furnishing opportunities for. The flight of a certain President Soto (also a nothus) with several millions of the State funds, may be added to the list. An important episode in Brazilian history was the protest of legitimately born citizens against the unloading of noble Portuguese half-bloods to fill privileged positions in that South American state.

96 Seldom has a model been so completely at the command of the artist and in such characteristic poses. Machiavelli was present at the Sinigaglia tragedy and indeed invited the unjust charge of having prompted many of Caesar's crimes because of his adoption, as ideal, of one whose horrible treachery he had been an eye witness of. But neither this exhibition of merciless ferocity nor the contrasting one, when he abjectly crawled at the feet of Guidobaldo whom he had plundered the palace of after the reachery elsewhere related (Note 92) could shake Machiavelli's faith in his ideal. Therefore the traditional signification of "Machiavellianism" need not be, as Macaulay would have it abolished. Borgia's system, just before its collapse, had reached the stage of breaking into houses in broad daylight to procure the funds needed for the plans of Macaulay's "greatest practical statesman"; for obstreperous owners of wealth he had his expert execution ers, Michelletti and Coreglia, ready at all times; the former surviving the Borgia days to make interesting revelations, placing the historic accuracy of the accounts making Borgia the monster he has passed into history as, on as firm a foundation as any fact of that day. The apologist for Machiavelli quoted (94) speaks of the Italian spirit expressed in "The Prince" as turning with loathing from those barbarians who found a fiendish pleasure "in razing magnificent cities, cutting the throats of enemies who cried for quarter or suffocating an unarmed population by thousands in caverns." Macaulay goes on to expatiate on the refinement of Italians in contrast with the swinish qualities of the Swiss, licentiousness of the French, etc., oblivious of the fact that Italian historians of the Bourbon Sacco discriminate between German, Italian and Spanish mercenaries as the first being least vicious, their own countrymen extremely so, and the Spaniards the worst of all. As to razing cities, the annals are filled with twenty records of such performances by Itallans to the one by foreigners. How often was Praeneste (Palestrina) razed since Sulla's day and by whom? When Caesar Borgia captured Capua he reserved forty of the most beautiful maidens for himself. Many preferred drowning themselves in the Volturno, to serving the monster's brutal purpose. When one of Catharine Sforza's paramours had been assassinated at Forli she had massacred indiscriminately the men, women and children first to fall into her hands. The verdict of antiquarians is that no one of the numerous vicissitudes which Rome underwent, eliminated so many architectural records as the Gruiscard raid invited by Gregory VII, and that the greater part of what remained was burnt to lime and farmed out for that purpose by Rome's chief magistrates. Faithfully did the author of "Il Principe" depict the bastard and bastard descended nepotes and princelings of his day, when his English apologist could extract therefrom his paradigms of a definition of the subject of this paper. With

modifications these were all condensed in Machiavel's model whom Macaulay places the former in juxtaposition with when styling the couple the "greatest speculative and the greatest practical statesmen of the age," actually confessing judgment in a paragraph preceding in these words, "the soft and graceful manners which masked the insatiable ambition and implacable hatred of Caesar Borgia."

The remarkable analogy of the nothus Bertha's son, Hugo's character, with that of Borgia, struck Gregorovius; and this circumstance is supplemented by the panegyrist position of Liutprand to the former, analogous to Macchiavelli's to the latter.

97 These few writers are as stated characterized best by a mention of three representatives, at the same time nearly a majority of those in the group. Richard Savage is sufficiently well known. Girardin and Herzen, deceased but a few years ago, are almost forgotten; yet it is well to recall their achievements from time to time as examples to be avoided. Most of those who have written of Siberia or on the system of deportation of political criminals prevailing in Russia, have found occasion to make comments like Joests, who noting that his readers will find a remarkable difference between certain statements made in Alexander Herzen's "My Exile in Siberia" and his, assigns as the reason, that Herzen "had not been in Siberia at all." Of few individuals did contemporary writers and do biographical encyclopædists speak with such unsparing condemnation; and this they did justly and while he lived, without apprehension as to libel. Historical writers supplement what is tantamount to the charge of falsification, by one of literary forgery, for his alleged "Memoirs" of Catherine II and the Princess Daschkow are looked on as apocryphal or as so largely Herzen "edited in" and Catherine "edited out," as to leave them of the same authentic value as his description of an exile to a land he had not even seen at a distance. It is another of the strange groupings into which natural children drift, that the memoirs of the bastard Herzen's editing were alleged to be those of an adultery born Czarina, and of her confidante, suspected to have been the like result of a liaison between her mother and Panini; Russia furnishes a fair increment to this subject: The cruel "Iwan the Terrible" was adulterinus of Helen Glinski and Iwan Obolenski; his son the *genuine* Dimitri was by a Tatar concubine, Marfa; the first pseudo-Dimitri was a clandestine bantling of Bathori's; the second was probably a miscegenate in illegitimacy; and the fourth Dimitri—that is, the third pretender—was like his claimed father likewise. Of two illegitimate Orlows, one, involved in conspiracy, "saved his skin" by timely abandoning his associates; the other showed his skill by hoodwinking the Sultan into opening the Dardanelles. Relative to the Romanoffs (See also Note 42; the daughter there referred to was named Narischkina) it may be added that the legitimacy of Emperor Paul, was as problematical as would have been a son by Eunuch Narses.

98 Among the writers of memoirs or chronicles were Angouleme (Charles—not Henry) the Princess Conti II, the Abbot of St. Denis (a Carlovingian like Hartlib and Nithard) and Saxe; scientific or philosophical

works we owe to Pomponius, Erasmus, Barnim and, above all, Busbecq. Of the poets and writers of fiction (10: 3 female, 7 male) two females and one male contributed to the pornographic: Blois, Nantes and Aretin. The latter of this trio is said to have died of laughter at his sister's libidinous practical jokes. Two committed suicide: Carey, son of the great Halifax, author of "God save the King" and ancestor of the histrionic Keans; also Starklov, natural son of a prince of the Oldenburg family. Savage, who at one time was in imminent danger of incurring the death penalty for murder, died in jail. Of the handful remaining, Boccaccio, the younger Dumas and the younger Goethe were *post-legitimati*. A characterization of Luttrel, by Macaulay (Trevelyan op. cit) may repay perusal in this connection, as it presents as favorable a picture of the literary nothus, as Busbecq's career does of the scientific. The highly romantic character of Saxe after transmission through his natural daughter, Madame Dupin, culminated in that exponent of romantic mysticism, George Sand.

Further cases accumulated since the tables were closed (bringing the total up to 1,197) include the following redeeming members of their class: The Russian Fadijew, the Sarmatian Suekowski, a brilliant soldier and writer of memoirs; the leading poet of France, Delille, and the Portuguese Sanchez (Alfonso) and Barcellos. The artist Lippi and the eminent architect Nuell, who committed suicide after completing the Vienna Opera House, and the musician Thalberg are also to be noted. That Chopin's father was a natural child is well known.

99 Johannes Scherr (Die Semiramis des Nordens Vol. X of his Human Tragedy-Comedy" *Menschliche Tragikomœdie*). In this relation I may recall in addition to the murder of Jeanne d'Arc and others (Notes 26, 32 and 35, the outrageous miscarriage of justice by which the bastard strumpet Rudd made the Perreau brothers suffer for her forgeries (Chronicles of the Bow Street Police Court by Percy Fitzgerald, F. S. D., 1888). This adventuress, mistress of one of the Perreau twins, was the natural daughter of a person prominent in financial affairs and influential at court; she was seen during her trial to exchange significant glances with the foreman of the jury. Her brazen, but well-measured behavior and personal attractions secured her liberty. This fascinating power had become the topic of the day; old Johnson, for example, evaded Boswell's importunities to see her, on account of apprehensions, (which Boswell in his own person subsequently realized). In a notorious "badger game" case, recently tried on this side of the water, the male partner in the crime received a heavy penalty, but the female went free. The latter is represented as hypnotizing the jury and witnesses. As analogy of her circumstances to those of the Rudd woman may be inferred from the fact that she is mentioned as stating her receiving regular remittances from a father whom she was not permitted to name. It may be noted in this same connection that while the justice of Mary Stuart's fate is no longer, as once was the fashion, disputed on sentimental grounds, historians are not inclined to dismiss the charge against her brother Moray (The Earl Murray, Note 7) as having fabricated the letters, of which he sent the

alleged copies to her accusers. This was one of those trials remarkable for a strange departure from observance of ordinary rules of evidence. Mary was convicted on copies of letters attributed to and incriminating her! It is not at all out of the realm of the possible that this was a repetition of a bastard brother's forgery mentioned elsewhere (Note 35). Against Mary, certainly, no trickery had been needed, even assuming a judicial tribunal so unscrupulous as to contemplate employing such. But it seems that the original impulse maintains the creatures of intrigue and dissimulation in crooked courses; when the straightforward would serve even *their* purposes, as well or better.

It is a sinister coincidence that mysterious caskets whose contents were presumable forgeries, play a part in biographies of three historical bastards, who lived within a century of each other. There is the one just referred to as containing copies of Mary Stuart's incriminating letters which Murray was alleged to have concocted himself; then the mysterious "black box" containing proofs of Charles' marriage to the mother of Monmouth, whose existence was rumored about the time that this bastard omitted the bar sinister from the escutcheon painted on his carriage; a procedure not unnoticed by keen Pepys; finally there is mentioned in Portuguese history, a similarly mysterious article containing the proofs of an alleged marriage between the parents of the pretender Dom Antonio. They all recall the chest containing saintly relics, on which Harold the Saxon was juggled into swearing away the Saxon crown to the Norman bastard.

100 The preponderance of females among adulterines and the illegitimate offspring of widows and "*femmes emancipees*" (Henrietta's daughter by Lord Jermyn, Saphir's "Bergen" by Mrs. Gordon, Madame Espinasse, and a great composer's daughter by "a Liszt admirer" being instances of the latter) is probably to be accounted for on two presumptions: First, the intenser sexuality of such female contrasted with that of the misled single or virgin female; second, the element of age. From the twenty-eighth or the thirty-fifth year the female's determining power is at its maximum; and under circumstances connected with illegitimate procreation, the male partner is more frequently of the same or lesser age, whereas in wedlock a desparity is overwhelmingly in the other direction as it also is in amatory and clandestine relations. Where the latter show exceptions we have the comparatively rare occurrence of female offspring—as in Shakespeare's case, who several years younger than Anne Hatheway, had as first child a wedlock-born but prenuptially conceived daughter, the later Mrs. Hall (No. 2).

101 Besides the daughter Ruperta (Note 79) the Prince of "Marston Moor" fame had an adulterine son, Scott. Now, though Lord Scott and the mother had been separated twelve years, and the former instituted legal proceedings, distinctly repudiating even a shadow of possible paternity, he eventually acknowledged the *adulterinus* as his son and heir. So Agis, well aware of Timea's infidelity, Alcibiades' (Note 58) paternity and particularly well aware of the impossibility of his own (unless *non bis in idem* have exceptions) on his death-bed acknowledged Leiotichides; whom in his

sounder moments he had denied filiation to. Other dupes have preferred to remain such in private, to taking the ridiculous position of being known as such to the world at large. Such was the course of the fathers of Beltranja; of the Second Basil, whom Theophana herself denounced as her adulterine son—of the *adulterinus* Countess de la Marck had by Fürstemberg; of the Abbe Soubise; of that Duke of Pastrana, Spanish Philip II had by the Princess Eboli; of Wortly Montagu; and of Theodosius, ruler of the Lower Empire. Occasionally an "opportunist" has condoned the offense; as, probably, did the broker of Alexandria by whose wife Alexander Bala (himself of worse than doubtful origin) had fathered the later claimant and usurper, Alexander Zebina. The husband of Lucius Otho's mother by Tiberius, seems to have assumed an attitude of resignation for similar reasons. Gibbon, in discussing the predicament of another Roman, approvingly cites a statement that husbands are readily deceived, when wives condescend to dissemble. Denmark's Christian VII and Russia's Peter II certainly sustain this. All the skill and energy of a zealous queen dowager and court camarilla would have been employed in vain to convince the former of the infidelity of his queen Caroline, had she not been recklessly careless. Then he consented to recognize that Louise (whom physical reasons rendered it out of the question, his having been parent to) was Struensee's daughter. Peter, who had as good as surprised Poniatowski with Catharine; informed of the approaching confinement the "dates" proved his non-responsibility for; on breaking into the queen's room and finding her seated in a chair quite unconcerned; except in as far as she showed indignation at the intrusion; actually made an abject apology to one whose child (Bobrinska), born *an hour* previous, was that very moment being taken out of the palace to its foster mother. How well this illustrates the dissimulating craft of the class to which the mother of the child she contributed to that class, herself belonged!

Where Servilia's husband was and what his attitude at the time when Cato—attributing political mystery to a note handed Caesar in Senate—had the mortification (for Caesar by way of silencing the insinuator, threw it over to him) of finding an intimate communication from his own sister, has puzzled me not a little. How Caesar loved both the elder and younger Brutus, Servilia's children, is notorious. His instructions to his officers to protect the elder in an impending battle which found them opposed, recall David's solicitude for Absalom, on like occasion! Uxorious complacency made of Verus and Severus credulous tolerators, and of Antoninus an actual accessory to a deception of himself, the audacity of which fell just short of the making Claudius figure at the Messalina ceremony. Later, Claudius his wits sharpened by experience, was a less pliable dupe; and he repudiated the freedman Boter's daughter, Claudia, whom his later wife Uganilla bore. As poachers often prove better guardians than the official gamekeeper, so a Charles the Second could better draw the line between his own and other's fathering, than many victims of marital infidelity. This he showed in recognizing several children as his offspring by the Duchess of Cleveland, while a daughter born nine months after the celebrated saltatorial

feat of the great Marlboro, was expeditiously transferred to a French convent, in which modern substitute for the Taygetus the Cleveland-Marlboro waif disappeared from public life.

Still further complicated becomes the question of the value of such acknowledgements, in the light of Alexander the Sixth's "bulls," which one is tempted to read in its sense as prevailing on the banks of the Liffey. By one of these he legitimated the Duke of Lermontana (Nepi) as Caesar Borgia's illegitimate son; by the second as *his own issue!*

In Plutarch the reader will find a conversation between the conqueror Alexander and Olympia which is practically a model for that between the Bastard and Lady Fauconbridge in "King John". Remembering the scene where Philip took the part of the Macedonian noble who had called Alexander illegitimate (when his unfilial successor made the remark about the would-be conqueror of the earth, not being able to keep so much of it, as was under his feet); the difficulty of making the time-count tally; the exclamation of Philip on hearing of the birth of Alexander; I cannot admit Alexander, with his strong resemblances to the nothus types, as a case pointing against my interpretation of bastard character. Impartiality justifies my excluding him from the list of unquestionably legitimate characters, as the desire to keep all impugnable cases from them, led me to omit him. Olympia's snake story has the true "serpentine" character. Philip himself certainly loved Arrhidaeus—notwithstanding his imbecility—better than Alexander; for of the paternity of this dancing-girl's child he had reasons to feel much more confident than of Alexander's.

(To be Concluded in October, 1901.)

SELECTIONS.

CLINICAL NEUROLOGY.

SYRINGOMYELIA OR LEONTIASIS OSSEA.—Dr. J. S. Collier reports a case (Lancet Jan. 3, 1901) whose interest consisted first, in the presence of syringomyelia in the absence of all the usual signs of that condition; and second, a close simulation both in signs and symptoms of leontiasis ossea by a thin deformed skull and meningeal ossification.

BRAIN ATROPHY FORTY-NINE YEARS AFTER ARM AMPUTATION.—Drs. Maclulich and Goodall report the case of a man whose forearm was amputated at the age of thirteen. A necropsy forty-nine years after revealed (Lancet Jan. 12, 1901) a patch of softening, roughly oblong, about one and one-half centimeter in length and three-fourths to one centimeter in breadth, occupying the gray matter of the brain at the base of the second right frontal gyrus, where it joins the ascending frontal. The lesion looked old, but there was no sclerosis. The basal vessels were slightly atheromatous.

LOCOMOTOR ATAXIA IN WOMEN.—Dr. E. Mendel found on examination of forty-two thousand six hundred and sixty-four cases that 3.53 per cent or seven hundred and twenty-five men were tabetic, while but 1.31 per cent or two hundred and eighty-eight women were tabetic. The proportion of male to female tabetic is therefore greater than the sex proportion in paretic dementia. Among the well-to-do classes the condition was somewhat reversed. The proportion being twenty-five to one. Sterility was exceedingly frequent among female tabetics. The question of

miscarriages which has a more significant relationship (Neurologisches Centralblatt Jan. 1, 1901) to lues was not discussed. So far as these figures go they would tend to indicate that lues was more frequent among female tabetics than among female paretics.

CHOREA DURING PREGNANCY.—Dr. D. R. Brower in discussing (Obstetrics, February 1901) the neurologic aspects of pregnancy before the Chicago Academy of Medicine stated that Chorea during pregnancy was a serious and even fatal condition. It should be combated by the same general method employed in Sydenham's chorea. He preferred arsenic in full doses.

HYSTERIA AND TREATMENT OF THE PLACENTA.—Dr. Harriet Alexander in a discussion of the folklore aspects of pregnancy before the Chicago Academy of Medicine pointed out that hysteria according to folklore often had a placental aetiology. When the child is expelled spontaneously, the cord must be cut and tied to the thigh of the mother to prevent the escape of the placenta into the body of the womb which would give rise to hysteria in future offspring. In folklore hysteria was charged, even in Shakespeare's time, to the spirit of the womb (in old English "the mother") affecting both sexes. The spirit of the womb was due to the escape of the placenta.

HYPEREMESIS GRAVIDARUM AND HYSTERIA.—At a recent meeting of the Leipzig Obstetric Society, Graefe advocated (Centralblatt Gyn. Oct. 1900) the hysteric nature of pregnancy vomiting. In the discussion Windscheid refused to accept the hypothesis of hysteria. There might be a small proportion of cases which would come under this head but as a rule pregnancy vomiting implied a gastric affection. Since vomiting is not uncommon during menstruation there must be a sympathy between the uterus and the stomach. Zweifel has shown (Obstetrics Jan. 1901) that touching the peritoneum during laparotomy will often induce vomiting. Why, then, should not distention of the serosa by the gravid uterus cause the same reflex? Pregnancy

causes paræsthesia in many nerve-trunks; why not, then in the gastric nerves? Vomiting of pregnancy is a phenomenon of the morning. The only analogous condition is, the morning vomiting of the drunkard. The latter ejects, principally, saliva which he has swallowed over night. Salivation is not uncommon in pregnancy. Women do not become cachetic and perish from any hysteric affection, yet they do both from hyperemesis.

Zweifel while agreeing in some respects with Windscheid believed that hysteria might be a pernicious disease at times, and had seen at least one case of this sort. Menge objected strongly to Graefe's belief, that even simple emesis of the gravid state was hysteric. When known hysteric women are pregnant their ordinary nervous symptoms do not run a parallel course with the emesis, nor do the former vanish with the latter after interruption or termination of the pregnancy, or, as frequently happens, in mild cases at the end of the fifth month. Graefe's claim (that pregnant women become nauseated and vomit, purely from suggestion, they having heard that emesis was most likely to accompany gravidity,) he thought quite untenable. Hysteria and vomiting of pregnancy are widely prevalent affections hence often co-exist, but nevertheless stand in no causal relation with each other. Kronig could not see why a given hysteric might not exhibit one phase of hysteria to the exclusion of the rest. Severe manifestations of hysteria were found in women free from the ordinary stigmata of the neurosis. Windscheid's opinion that hysteria never injured the health was not held by neurologists. Jolly had described hysteric vomiting independent of pregnancy and had shown that the resultant combined anorexia and emesis had induced great emaciation. Hysteria has been shown by neurologists to terminate in exhaustion and death and on necropsy no lesions had been found. Were pregnancy vomiting a mere uterine reflex, gravid women would suffer oftener. Kronig had analyzed the stomach contents of the pregnant and found everything practically normal as is often the case in the uterus, embryo, etc. There is no evidence that uterine distention as

in twin pregnancy predisposes to hyperemesis. Beckhaus looked upon hyperemesis gravidarum as essentially hysteric, and agreed with Graefe that cure might be affected by diet and isolation. Hennig had found sialorrhea infrequent in pregnancy.

Graefe, closing the discussion, said that pregnancy could furnish an acquired disposition to hysteria in a woman previously free. Most women when they become pregnant have their psychic equilibrium disturbed, especially primiparæ. When pregnancy is merely suspected, in the first month the woman cherishes the hope that she may not, after all, have conceived. But at a later period, when there is little doubt of impregnation and the truth bursts upon her with full force, she may become psychically upset, with the supervention of persistent vomiting. The menstrual vomiting, mentioned by Windscheid, is a hysteric phenomenon. The fact that this vomiting occurs in the morning does not mitigate against the hysteric theory. He had not found that vomiting occurs by preference early. It may have some connection with assuming the erect posture and can at times be prevented if this change of posture be affected very gradually. One proof of the hysteric nature of this hyperemesis, is that a single dose of medicine may affect a cure by suggestion. Graefe has never seen hyperemesis result from over-distention of the uterus. A reflex affection can hardly be cured by psychical therapy. With regard to the point that ignorant girls may vomit although unaware of the fact that they are pregnant, these girls know to what imprudence they have been exposed and fear the consequences. The psychic state is the same as when they first realize they are pregnant. Graefe paid a tribute to Klein, the pioneer in the doctrine of the hysteric nature of hyperemesis gravidarum, for the regimen devised by him, consisting of diet, rest in bed, and isolation, which appeared to be able to avert these cases in the initial stage while still mild in degree.

LEFT-SIDED CHOREIFORM MOVEMENTS AFTER TRAUMA.—Dr. Dudley Fulton reports the case of a thirty-

five year old engineer whose father had apoplexy. The patient had enteric fever in 1900 from which he made a good recovery. In April of the same year the seventh and eighth ribs of the right side were broken in a mine explosion. Weakness and pain in the back followed. He was in bed five weeks, after which inceasing weakness, especially of the left knee, on walking was noticed. The left arm was also weaker than its fellow. There was dull pain in the occiput, and extreme tenderness of the spine. Immediately after trauma, there began irregular, intermittent twitching of the muscles of the left arm, leg and body. August 20th, Dr. Fulton found (*Modern Medicine* Feb. 1901) that the patient had intermittent, painful choreiform movements of the left arm, muscles of the left trunk and left leg, varying in intensity; frequency, from two to six per minute. Sensory irritations increased the spasmodic movements. There was tenderness from second to twelfth dorsal spine, more marked on the left side; area of hyperesthesia to heat, cold, and pain on left side of body posteriorly from second to twelfth dorsal, with a corresponding distribution around body, fading gradually at the parasternal line of the same side. The patient walked with a crutch and a cane. He wore a leather and an elastic body brace. The reflexes were lively; sleep and general health greatly disturbed. Free elimination was encouraged by the electric light baths, flushing of the kidneys by abundance of water drinking, and by encouraging the activity of the bowels. The patient was kept at rest. The body braces were removed. Sedative full baths, temperature 98°—93° F., with a mild galvanic current, were given for an hour, daily. Neutral douches, without percussion along the spine were also used. Sedative compresses to the spine and left side of the body were worn nightly. Later, when irritative symptoms had disappeared, mechanical and manual Swedish movements and galvanism were given to strengthen the weak muscles of the leg, arm and trunk. The choreiform movements ceased, all pain disappeared, the gait became normal, and the patient was discharged, cured, Septemper 10.

WORD DEAFNESS.—Dr. O. Veraguth reports (Deutsch. Ztschrft. f. Nervenh B. XVII Hft. 2) the case of a man who the year precedent to death had frequent temporary sensory aphasia. In the intervals of these attacks his language was correct but he did not seem to comprehend what was said to him. Aural examination gave negative results. At the autopsy a general atrophy of the brain was noticed with especial reduction of the size of the superior temporal convolutions of the left side; also of the operculum and of the inferior frontal convolution. The case demonstrates that word deafness is essentially of cortical origin.

ALCOHOLIC OR ARSENICAL NEURITIS.—The recent epidemic of arsenical neuritis in England has afforded an opportunity for the differential study of peripheral neuritis due to alcohol and that caused by arsenic. J. S. Bury (*Medicine* March 1901) says that hyperesthesia of the skin and muscles while not always absent in alcoholic neuritis is much more consistent and generally severe in cases due to arsenic. The vasomotor phenomena are also very striking in the arsenical cases and very rarely present in the alcoholic. In the present epidemic, ataxia has been frequently noted in the arsenical cases but it is comparatively infrequent in the alcoholic. In the treatment of the infection, Bury insists upon rest in bed and under no circumstances should there be massage of the affected limbs. The pain should be relieved by antipyrin, phenacetin, or morphine, if necessary. Warm fomentations are also useful in relieving the pain. Sodium salicylate and potassium iodide are of some service. Strychnine should not be given early in the affection.

PLANTAR REFLEXES IN INFANCY.—Dr. J. L. Morse has studied the plantar reflexes (*Pediatrics* Jan. 1, 1901) in two hundred and fifty-four infants under two. In testing the reflex a moderately pointed orange stick is used. It was drawn not too rapidly nor too forcibly toward the toes along the outer side and middle of the foot; each foot was always tested several times to avoid error. The flexion of all

or some of the toes was accepted as the reflexor reflex. The extensor reflex was limited to the deliberate marked extension of the great toe, with or without extension of other toes. Especial care was taken not to accept dorsal flexion of the foot including the toes as an extensor reflex. This dorsal flexion of the foot as a whole has probably been mistaken by observers for the true extensor reflex whence the discrepancy in the results of observers. Flexion in both sides was found in 25.5 per cent; extention on both sides in 21.5 per cent; flexion on one side and extension on one side in 5 per cent; flexion on one side and no reflex on one side in 7 per cent; extension on one side and no reflex on one side in 6 per cent; no reflex on either side in 35 per cent: dorsal flection of the feet in 8.5 per cent; drawing up the legs in 11 per cent. There is no constant plantar reflex in the first year; while the reflex approaches the adult type during the second year, it is still inconstant. Owing to these variations during the first two years of life the reflex is of no value in the diagnosis of diseases of the nervous system.

EPILEPTOID TREMBLING AS A PHTHISIS SYMPTOM.—Drs. S. Leopold, Levi and Follet state that epileptoid tremor is not an infrequent symptom of phthisis. It has been noticed by them in nine cases out of fifty. They report (Revue Neurologique Jan. 15, 1901) the case of a twenty-two year old phthisical woman who had cavity in the right apex. When she put her foot on the ground a jerk spasm of the flexors of the ankle came on and was followed by clonic movements if pressure against the ball of the foot was maintained. Ankle clonus and patellar clonus was easily elicited. There was no local muscular atrophy and cutaneous sensibility was everywhere normal. Her occupation was that of a compositor but she seemed quite free from symptoms from lead poisoning. She was free from symptoms of hysteria and of epilepsy but had suffered from attacks of indigestion with headache disturbances of vision, nausea and epigastric discomfort. The visual disturbances occasionally took the form of hemiopia. A second case was

similar to the above. Of the seven other cases two were males and five were females the ages varying from eighteen to thirty years. Three of the latter had previously had typhoid fever. Another at one time addicted to absinthe was an unstable emotional neurotic subject to cramps of the great toe and vaso-motor troubles of the feet. The fifth was nervous and occasionally subject to grave hysteria. None of the cases suffered from paresis, amyotrophic trembling, or myoedema. It was not possible to elicit the reaction of debility or of cachexia in the muscles. The existance of pulmonary cavities in all the cases in which the symptoms of epileptoid clonic trembling was observed suggest the question whether such symptoms were due to the action on the spinal cord of toxins. While admitting (Lancet, March 9, 1901) epileptoid tremor a condition of excitation of the pyramidal tract which does not result in nerve fiber degeneration, Drs. Levi and Follet believe the tremor to be due to toxins of tuberculosis or para-tuberculous origin.

STEREOAGNOSIS.—Dr. C. W. Burr concludes after discussing stereoagnosis and allied conditions (*Amr. Jour. Med. Science* March 1901) that: first, the ability to recognize objects by handling them depends upon the integrity of the afferent nerves, the cortical sensory area, and the cortical perceptive area; second, disease of either of these will make it impossible for the patient to recognize objects by handling them; third, we may dismiss from consideration here the inability to recognize objects because of disease of the sensory nerves or of the sensory tracts in the spinal cord, medulla, and pons. Such inability is due to anesthesia of one or more types; fourth, there is a distinct area of the cortex in which sensations produced by handling objects are grouped together to form tactile memory images, the tactile perceptive area, in the parietal lobe, which is not the same thing as the sensory area, though it may be located within the boundaries of the latter; fifth, it would be well to limit the term stereoagnosis to cases in which the inability to recognize objects by contact

is due to some failure of sensation caused by brain-disease either in the cortical sensory area itself or in the fibers going to it. Sixth, tactile amnesia includes the case in which, on account of disease in the tactile perceptive area, the tactile memory images are destroyed. It is not infrequently associated with mind-blindness, and, indeed, it is probable that always in recognizing objects by handling them we recall from memory a more or less faint recollection of the visual appearance of the object. Auditory memories are less frequently recalled, because less frequently needed to make a complete percept, and those of smell and taste quite readily. Seventh. The form of sensation most necessary for the recognition of any given object depends upon the qualities of the object. Tactile anesthesia, if sensibility to stronger pressure is preserved, causes little or no difficulty. The space sense, the localizing sense, and thé sense of position, are probably the most important, for by them we learn the form of objects—the most important element in recognition. Eighth. When in the cerebral palsies of children there is inability to recognize objects in the paralyzed hand, it is often caused, as Oppenheim states, by the fact that tactile memory images were never acquired. Ninth. Granting that the tactile perceptive area is not the same as the cortical sensory area, such cases as the second reported can be explained upon the hypothesis of a lesion cutting off the fibers joining the two areas.

PERIPHERAL PERFORATING PLANTAR ULCER CURED BY FARADISATION OF THE POSTERIOR TIBIAL NERVE.—(*Journal de Neurologie*, November 10, 1900.) Dr. Crocq first saw this case, a man forty-six years of age, in December, 1899. The patient had been in good health up to the age of twenty when his right leg was caught in some machinery causing a very serious wound in the calf which resulted in an extended scar with considerable retraction of the neurosis common to the gastrocnemius and soleus muscles. There developed in consequence a very marked varus equinus. The patient was obliged to walk on the

outer edge of his foot but no trophic trouble ensued. Six years later he sustained a fracture in the neighborhood of the external malleolus. Soon after, a corn under the head of the fifth metatarsal began to be inflamed and to degenerate, forming a round ulceration the size of a franc piece. Treatment was of no avail; a tendency to cicatrization being immediately followed by a new ulceration within a radius of one or two centimetres.

This was his condition on entering the hospital. A slight depression in the top of the ulcer secreted a purulent discharge and the foot was the seat of various trophic disturbances, notably of the nails and skin.

The diagnosis of perforating ulcer was made. Treatment consisted of ichthyol dressing and faradisation of the posterior tibial nerve and its external terminal branch. A strong faradic current was applied for fifteen minutes daily. Improvement was immediate and rapid and the patient left the hospital apparently cured five weeks after entering. Being unable, however, to return to the hospital for treatment, the trouble reappeared at the end of ten days. He returned to the clinic in March, the disease being worse than ever although the ichthyol dressings had been employed continuously. Dr. Crocq lent him a small faradic battery with directions for its application. The subsequent amelioration was constant but very slow, the ulcer persisting for five months. The electrical treatments were continued for some time longer. There has been no reappearance of the difficulty.

Dr. Crocq also gives a brief resumé of a previous case of his own, the first recorded of perforating plantar ulcer cured by faradisation of the tibial nerve. The trouble in this instance arose from a slight wound made from a nail in the shoe to which little attention was given. After three weeks, the wound appearing serious, the patient consulted a physician who advised rest and antiseptic dressings, the amelioration from which ceased as soon as he began to walk. This condition continued for two years, making attention to business impossible. When he came under observation Dr. Crocq found a small ulcer secreting a puru-

lent discharge. The skin was discolored, glossy and cold. Before resorting to stretching of the nerve, Dr. Crocq determined to try faradisation of the posterior tibial nerve. As a result improvement was rapid and constant. The wound cicatrised in six weeks but treatment was continued at increasing intervals two months longer. There has been no relapse.

At the time this case was first reported Dr. Crocq has given it as his belief that the effects obtained by nerve stretching were equally to be obtained by electrisation of the nerve trunks. He affirms however, that we must not generalize too widely from two cases and believes that faradisation will cure all perforating ulcers. It depends entirely upon their cause, since obviously the electrisation of peripheral nerves would at most give but temporary relief to an ulcer of central origin. The same would be true were the trouble due to a traumatism destroying the regular functioning of the nerve.

In the second of the cases cited, the ulcer was due to a simple peripheral neuritis; the cure therefore was rapid and definite. In the first case, on the other hand, there had been successive accidents probably resulting in alterations in surrounding tissue, whose mechanical causes could not easily be removed. The early accident, while not apparently injuring the innervation of the foot, disturbed it sufficiently to prepare the ground for the second, of which the ulcer seemed the immediate result. Dr. Crocq believes that herein lies the explanation of the relapse suffered by this man; nor does he dare affirm positively that the one cure will be final. He can only say that at the time of speaking there had been no further relapse and the patient had attended continuously to his business since the home treatment begun.

Where surgical interference is possible it is preferable, but when, as often happens, a patient refuses to submit to such intervention, recourse should always be had to faradic treatment.—*C. Eugene Riggs, St. Paul Medical Journal.*

STATUS EPILEPTICUS.—(Clark and Prout, *Med. Rec.*, November 24, 1900.)—Status is the acme of the disease and not a chance termination; it is a state in which the seizures follow each other so closely that the previous psychical exhaustion is not recovered from. It occurs with equal frequency in all forms except that from organic brain disease, which cases constitute one-half the whole number. Status occurs on the average eleven years after the onset of the disease. Its approach is denoted by a steady increase in the number of seizures. Elevation of the temperature begins after the first severe convulsions, the height of the curve corresponding to the severity of the attack, and may reach 107° or 108°. The pulse follows the temperature. Respiration is almost always of the Cheyne-Stokes type, but is not an unfavorable symptom. Prognosis is grave. A low temperature is supposed to be a favorable sign, and paralysis of the muscles of deglutition and a gradual steady increase in the symptoms are unfavorable signs. The mortality does not exceed 25 per cent. The case can be aborted if taken in time. At the onset give gr. xxv of bromide, gr. xx of chloral and a large dose of opium or morphine. Then if necessary, give gr. xxx or gr. xl of chloral per rectum, and if this does not control the convulsions give bromide hypodermically. The rest of the epileptic storm is in the cortex. Recent research warrants the following conclusions: First. The transmission of the impulse is through the extra-pyramidal tracts which transmit motor reflex impulses; Second, sensory portions must be irritated in order to produce the fit; Third, the fit is a complex reflex phenomenon. On histological examination of the cortical areas the following condition is found: chromotolysis, in degree depending on the number and severity of the seizures. In cells in the second layer the nucleus is swollen, membrane hazy and the nucleolus granular. Nucleoli are found outside the cells. Leucocytes are seen clinging to the degenerated nerve cells. The neuroglia is broadened. The conclusions drawn are, that the disease is essentially sensory, the lesion being in the nucleus of the cortical cell and jeopardizing the cell, and causing the his-

tological changes. The role of the leucocytes is phagocytic; the neuroglia proliferation is entirely secondary.—*Except by F. P. Norbury in Medical Fortnightly.*

THREE CASES OF ACROMEGALY.—At the meeting of the Chicago Neurological Society, held January 11th, Dr. Sydney Kuh reported three cases of acromegaly treated, with pituitary bodies. In the first case the existing headache and mental depression seemed somewhat relieved, while in the other two cases the patients were benefited to a more marked degree; headache, vertigo, general weakness, hyperidrosis and projectile vomiting ceased, and in one instance trophic disturbances in the nails of the hands showed well-marked changes for the better. In the third case cramps in the calves of the legs appeared after the patient had been under treatment for nearly one and a half years and the woman became very much depressed mentally. The essayist said that he did not believe the results to be due to suggestion only. He believes that the diseases of the pituitary body is the cause of acromegaly. In every case of this malady in which a thorough post-mortem examination was made, the gland was found to be affected not only in man, but also in the one case known to have occurred in an animal. There is a good deal of evidence to show that the hypophysis exerts some influence upon our physical development, that it may not only cause acromegaly, but under certain conditions the opposite condition, stunted growth.—*Abstracted by Dr. Allison Hodges, Richmond, Va., for Georgia Medical Journal Medicine and Surgery.*

INFLUENZA AS IT AFFECTS THE NERVOUS SYSTEM.—Bury, (*Med. News*) recognizes four types. First. The mucous membrane form; Second, the gastro-intestinal form; Third, the cardiac form; Fourth, the nervous form. There are nervous symptoms, as headache, hyperesthesia and depression present in all cases, but in cases which are predominantly nervous the systems may be divided into those, first of the febrile stage, as meningitis and encephalitis, and second, those coming on later. In the former a

comatose and a delirious type are distinguished. The former being very serious and often ending fatally. At post-mortem a meningo-encephalitis is found with endoarteritis of the vessels of the pia mater. Cerebral embolism, thrombosis and abscess may occur. The cord may be affected after the initial attack, but sometimes during it. In the second group may occur any known disease of the brain, cord or nerves. Unlike the diphtheria toxin it affects the nervous tissues haphazard and not in groups.

And all of these forms are due to the fact that grippe is a profound toxic neurosis.—ED.

CONCERNING DIABETIC COMA PRODUCED BY TRAUMA.—Spitzer Karlsbad, (*Deutsche Medicinische Wochenschrift*, Nov. 22, 1900.) reports a case in which a patient with diabetes, immediately after a fracture of the clavicle, developed coma and died. He had had diabetes for years, but had never presented diacetic acid or aceton in the urine. After the injury the quantity of sugar in the urine was increased from twenty-five g. daily to ten times the quantity. The pulse-beat was greatly increased, the patient became irritable and anxious. The urine responded to the iron chlorid test. Coma developed shortly and the patient succumbed. As to the explanation of the manner in which the rapid increase of the sugar was brought about, the author was in doubt. Whether through the severe concussion the liver loses its ability to convert the sugar brought to it, or whether a disturbance in cell metabolism is brought about by the same cause, could not be determined.—*J. S. Meyer in Weekly Medical Review.*

CONCERNING THE FREQUENCY OF SUGAR IN THE URINE OF CORPULENT PERSONS.—Felix Wolf, Marienbad (*Berliner Klinische Wochenschrift*, Jan. 28, 1901,) examined the urine of nine hundred and sixty-six corpulent persons visiting Marienbad for the treatment of various conditions, especially obesity. Of three hundred and thirty-one moderately fleshy individuals, twenty-five presented sugar in the morning urine, *i. e.*, the proportion of 75 : 1000;

of this number two hundred and six were women, ten of whom had sugar in the urine, *i. e.*, 49 : 1000; one hundred and twenty-five were men, with fifteen cases of glycosuria, *i. e.*, 120 : 1000. In six hundred and thirty-five cases of pronounced corpulency, there were seventy-one cases of glycosuria, *i. e.*, 110 : 1000; two hundred and sixty-eight of these were women with eighteen presenting sugar, *i. e.*, 66 : 1000; three hundred and sixty-seven men with fifty-three cases, *i. e.*, 144 : 1000. This table shows twice as many cases of glycosuria among corpulent men as among corpulent women. Of the nine hundred and sixty-six individuals observed, four hundred and nine were Jews, three hundred and seventy-five non-Jews and one hundred and eighty-two undetermined. Of the non-Jews, thirty-eight had sugar in the urine, *i. e.*, 101 : 1000; and of the Jews, twenty-eight *i. e.*, 92 : 1000. It seems that race has little or no relationship to glycosuria, though this is contrary to former observations. The tendency to glycosuria seems greatest in those corpulent individuals whose father was also corpulent, not so much so in the case of the mother.—*J. S. Meyer.*

A LARGE DOSE OF HYOSCIN.—Under the caption Poisoning by Hyoscin Hydrobromate, A. G. Servoss, M. D., of Havana, Ill., in the *Medical Council* reports that he was called hurriedly to see a man aged sixty-five, taken suddenly ill at his place of business about two hours after dinner, almost comatose, stretched on the counter. On account of dizziness, vertigo and ataxia speech was thick and indistinct. The pupils were dilated equally. The man had eaten a hearty dinner and walked a mile to the store, where he was busy until 2:30 o'clock. The man had taken one teaspoonful of a preparation of hyoscin hydrobromate containing 1.16 grain to the dram, which was labelled to be taken in ten drop doses as needed.

Later in the case, delusions and hallucinations became marked, with considerable increase in the rate of the pulse, which at the same time became very weak.

The principal treatment was by use of digitalis and

what bromides were necessary to quiet the nervous symptoms. No emetics were given. The patient made an uneventful recovery, being able to attend to business the second day.

This was a large dose but evidently not toxic as the patient slept off the effects even with the addition of bromides to the sedation of the hyoscin. The digitalis doubtless did some good but the patient would have slept off all ill effects, if put at once to bed, as he did any way. In cases of very high cerebral maniacal excitement we have administered three and four one-hundredths grains hypodermically followed by refreshing sleep and a short period of after mental tranquility with no untoward results.—ED.

THE PUPIL AFTER DEATH.—J. E. Courtney, M. D., Poughkeepsie, N. Y. The author concludes as follows: First. In persons dying of large cerebral hemorrhage, the pupils were large on the side opposite the lesion and remained perceptibly so at autopsy ten or twelve hours after death.

Second. In case of death from paretic dementia with a general meningo-cerebritis and adhesions of the pia to the convolutions, the pin-point pupils seen in life were unchanged at autopsy.

Third. In the condition of pachymeningitis hæmorrhagica the pupil contracted on the side of the hemorrhage and has been repeatedly found so at autopsies.—*Reprint from Medical Record, March 10, 1901.*

OPTIC NEURITIS PRODUCED BY THYROID EXTRACT.—Thyroid extract is now used so extensively says the *Cleveland Journal of Medicine* that much interest and importance must attach to an article in the *Archives d'Ophthalmologie* (December, 1900) by Coppez upon the production of optic neuritis by thyroid extract. He reports five cases of this condition, four of them in women. All of them were taking the drug for obesity, and had been getting rather large doses of it for some months, when amblyopia developed. About the same time the patients

were troubled with nervousness, insomnia, anorexia, and shortness of breath. The amblyopia when once it became manifest developed rapidly.

PARALYSIS AGITANS WITHOUT TREMOR.—(*Journal American Medical Association.*) Eshner reports a plumber, fifty years old, presenting the typical facies of this form of paralysis with but slight scarcely perceptible tremor though occasionally marked, also a woman, sixty-eight years. who showed slight tremor of the right hand on voluntary movements more marked on some days than other. The immobile facial expression and attitude were in both.

NEUROTHERAPY.

CATAPHORIC SPINAL ANESTHESIA.—(Dr. J. Leonard Corning, New York.) "The principle is to make the anesthetic penetrate the membranes of the spinal cord without puncturing them. This he does by cataphoresis using a four inch long tube terminating at the end in a small metal bulb, pierced to give passage to a tube of smaller calibre. The larger tube is insulated throughout its entire length, save the bulb, which is bare. The larger tube is introduced between the spinous processes of the third and fourth lumbar vertebrae till the metal bulb is stopped by the legamentum subflavum, when the inner tube is thrust forward sufficiently to pierce the ligament, yet leaving the dura and arachnoid unscathed. Having pierced the ligament, a hypodermic syringe is attached to a small tube and the anesthetic is injected into the dura. The syringe is then unscrewed, the smaller tube withdrawn, and securing the positive conducting cord of a galvanic battery to the binding post of the larger tube (the negative sponge of the battery being already over the abdomen), the current is passed through. Physiologically the undertaking was found to be a success, but practically, the author does not think it was, because of the long time necessary to the anesthesia and the rather formidable paraphernalia required.

SODIUM PERMANGANATE IN PHOSPHORUS AND MORPHINE POISONING.—Potassium permanganate has been proposed as an antidote for these poisons, the effect depending upon the powerful oxidizing action of the salt. Since large doses of potassium salts are toxic, the remedy cannot always be used in sufficient quantity, and for this reason Schreiber (*Apoth Zeit.*) substitutes sodium permanganate. Experiments with animals show this to be as affective as the potassium salt, and applicable without danger in larger doses. The author recommends, in cases of poisoning by phosphorus or morphine, to irrigate the stomach with 0.2 per cent. solution, and to leave at the end a pint of the solution in the stomach.—*Med. Times.*

VASO-CONSTRICTIVE PROPERTIES OF QUININE.—Huchard, (*Gazette de Hopitaux*, January 29, 1901, Medical Review). Following the example of Gueneau de Mussy, and Liegeois has prescribed quinin with success as a hemostatic. He employs a gram to a gram and a half per diem in the treatment of congestions and various hemorrhages,metrorrhagia and hemoptysis in particular, and especially metrorrhagia at the menopause. In exophthalmic goitre four out of six cases were markedly benefited, the daily dose being gradually diminished and the hydrobromate being the preferred salt. Hydrobromate of quinin is of great service in aortic insufficiency with strong pulsation.

NUTRITION AND STIMULATION.—I. N. Love, New York, in *Jour. A. M. A.* Mar. 2, 1901.—We must be imbued with the thought that the science of the sick room, the science of life, its continuance, the securement of growth, the science of nutrition by which growth is accomplished; the securement and maintenance of a strong, robust healthful physical and mental make-up, and a useful, graceful old age are all quite as important as laboratory results and deadhouse detail. It would be well if the physician had a voice in the matrimonial schemes of his patients. Bodily exercise is absolutely essential to health. Pure food laws are most necessary. Alcohol, although a food, is not essen-

tial to life. As a medicine it has great value, but it is as dangerous as a drug as it is as a food. It should be given to women only in the direst extremity. Tea and coffee should be withheld from children, but are excellent stimulants to adults. It is the impression of the writer that tobacco stands as the gravest danger confronting the new century. Nothing is so apt to bankrupt the sexual equipment. Heart failure is one of its frequent and serious complications.

THE NERVES OF THE CAPILLARIES WITH REMARKS ON NERVE ENDINGS IN MUSCLE.—A New Theory of Lymph-Formation and of Glandular Secretion. CHR. SIHLER.

After tracing the fibers of the chorda tympani nerve in the submaxillary gland, Sihler came to the conclusion that the gland cells themselves are not supplied with *nerve fibers*, but that the terminal fibers are found on the *capillary vessels* just as in the case of the capillaries of muscular tissues, and that, therefore, those nerves of muscle that are analogous to the glandular nerves are not the motor nerves, proper, but are those going to the capillaries. The author's histologic studies led him to the conclusion that there is a vast peripheral network of fine nerves, co-extensive with the capillaries of the muscles and glands, which has connections with sensory nerves and into which motor nerve trunks also enter, and which he therefore looks upon as being both sensory and motor. These nerves, so intimately connected with the capillaries, influence the protoplasm of their walls is such a way, that, according to the activity of the nerves, the *transudation of lymph* is increased or diminished. Further, they take cognizance of disturbances of a local or mechanical nature, and, in response to local causes of irritation, influence the capillaries of a part to pour out more fluid and act in the interest of the organ in question. As increase of lymph formation and vasodilation must, in the long run, go hand in hand, it would seem reasonable to suppose that the nerve fibers going from the capillaries to the arteries and veins may exert an inhibitory influence on the vaso-constrictors, or a stimulating one on

the vasodilators, thereby a larger supply of food is furnished to the irritated part. The author's investigations have led him to conclude that the *motor nerve-endings of the muscles* remained on the outside of the sarcolemma, and except that the surfaces where muscle and nerve come into contact are covered with a strong sheath of Schwann which has its own nuclei. What may be the exact condition of things at the points where muscle and nerve fibers are in actual contact, whether the sarcolemma and neurolemma are wanting there, perforations exist, or whether electrical phenomena observed in nervous activity can be used to explain the processes going on there—cannot at present be stated. The precise relation of muscle to nerve here is an unsolved and difficult histologic problem.

FAULTY DIGESTION AND MALTOPEPSIN.—Damesoril the dermatologist in an interesting article on faulty digestion recognizes the value of the care of the stomach in skin disease and lauds Tilden's Maltopepsines for that purpose, combining it with other appropriate remedies. His combination of strychnine sulph., and sodium bromide shows that he recognizes the lowered nerve tone back of and following apepsia and dyspepsia, though he does not specifically mention the fact that dyspepsia is a cerebro-neurogastric involvement.

ANTITOXIN TREATMENT OF TETANUS.—Conclusions of Moschcowitz (*Annals of Surgery*), that all forms are caused by the bacillus of Nicolaier.

The tetanus toxins have a distinct affinity for the anterior horns of the spinal cord, recognized by Nissl's method. The cerebrospinal fluid of tetanus is more toxic than blood.

The antitoxin therapy has a beneficial influence upon the course of tetanus.

The mortality with antitoxin treatment has reduced the percentage from ninety to forty per cent.

SANTONIN IN TABES.—Dr. C. Negro has found that santonin given in grain doses exercises marked influence on

the lightning-like pains of locomotor-ataxia (Giornale Acad. di Med. di. Turin January, 1901). He does not repeat this treatment more than five times in three months.

CHLORETONE.—Dr. E. H. Siter claims (*Therap. Gaz.* April) good results from the local use of chloretone as a dusting power in painful growths. Dr. C. F. Darnell has had good results from chloretone (*Texas Med. Jour.* March, 1901) in cystalgia and gastralgia.

GYMNASTIC TREATMENT OF TABES.—Dr. A. Bickel has recently made (*Deutsche Med. Woch.* March 21, 1901) experiments to determine the source of the compensation from systematic exercise in tabes. He divided the sensory nerves of the hind leg in dogs. In a few months the resultant ataxia had been compensated. Extirpation of the labyrinths resulted in severe ataxia and compensation was never full thereafter. Labyrinth extirpation is not followed by ataxia, except under such conditions. After compensation of ataxia from division of hind leg sensory nerves in dogs, portions of the sensory motor zone of the cortex were removed and sensory ataxia resulted. These experiments indicate that compensation of ataxia does not result from restitution in the limbs but is due to other organs, particularly the labyrinths and the sensory motor zone of the cortex.

PHOTOTHERAPY.—Light stimulates the nerve ends and thus enhances nutritive activity. Experiments confirming the fact are cited by Roger. If a man is brought from darkness into the light the carbon dioxide exhaled rises 14 per cent, if the light is allowed to act on the whole body the increase amounts to 36 per cent.—*Denver Medical Times.*

THE USE OF THE ENEMA IN INSANITY.—*Modern Medicine* makes the following valuable extract from Dr. M. Craig's article in the *British Medical Journal:* "The blood pressure is invariably low in acute mania, while high in melancholia. The lower pressure in mania is responsible for

the restlessness which is a constant symptom in this condition. This restlessness Dr. Craig has found to be relieved by the employment of an enema of eight to ten ounces of water. The patient's condition steadily improves when the enema is retained. This is a new and very important indication for this simple hydriatic procedure. The warm or neutral bath ought to be as useful in relieving the high pressure of melancholia as is the enema in relieving the low pressure of mania. The temperature of the bath should be 94° to 96°, the duration from thirty to sixty minutes."

CLINICAL PSYCHIATRY.

INSANITY IN TWINS, Dr. A. Cullere (*Archives de Neurologie* February, 1901,) states that the spinal predisposition of twins renders both liable to one common form of insanity. The attack is characterized by the three following features: first, simultaneity of the attack and more or less parallelism of the symptoms at the onset; secondly, analogous course and similarity of termination of the malady; and thirdly, the spontaneous origin of the disorder arising from a common organic basis. When these features are present it is possible to recognize in the insanity of twins an origin in degeneracy, for the common basis of development is usually some form of congenital mental debility or even imbecility. The onset of intellectual disorder is often early, it is characterized by variability of mental symptoms (polymorphism), and has a tendency to pass into premature mental enfeeblement (dementia præcox). Dr. Cullere is inclined to view the very fact of twinship (*gemellite*) as itself an indication of inferiority, and quotes to this effect the experiences of Keim, Fournier, and Jonathan Hutchinson that twins (*Lancet*, March 9, 1901,) are relatively common in the offspring of tuberculous and syphilitic parents. A strong neuropathic heredity is almost always met with in the genealogic history of insane twins, even when but one of the twins is the subject of insanity. Thus in six out of seven such cases the parental taint appeared in

the form of phthisis and lithiasis, phthisis and nephritis, insanity of the litigious paranoiac form, moral imbecility, or other nervous defect. The following cases illustrate insanity in twins. Case 1.—The patients were twin sisters, firstborn; the father was alcoholic and of precarious health. The mother was in normal health but bearing a neurotic taint from alcoholic and phthisical grandparents. The twin sisters were backward in speech and intelligence but otherwise enjoyed good health. They menstruated at the age of sixteen years. One became a seamstress and the other a domestic servant.. About seventeen years both began to show signs of mental confusion, irritability, and violence of temper. Both suffered from terrifying dreams and nightmare. They grew worse and one of them had to be placed in an insane hospital, the chief symptoms being maniacal excitement and irresistible impulses to violence and murder, which continued with remissions and intermissions for some years. She then became mentally enfeebled. The other sister exhibited similar symptoms of mania and murderous impulses and had intermittent attacks of frenzy mingled with incoherent screaming, cursing and crying; she made several attempts to dash out her brains. She gradually subsided to a quieter condition after a few years and exhibited a less degree of mental enfeeblement than did her sister. Both had facial asymmetry. Case 2.—The patients were twin brothers, the sons of a hypochondriacal man whose sister was insane. The twins were born at the fifth confinement and were during childhood noted to be weak-minded. Their mental disorder began to develop at about the age of twenty years. Both had a marked propensity to alcoholism; one became a soldier and while on military duty was seized with an attack of mental confusion and excitement. After this he had repeated maniacal attacks, and drinking always brought them on. He then developed delusions of a grandiose nature. The other at the age of twenty years had subacute delirium and passed into a stage of stupor. He subsequently developed persistent delusions of persecution,

INSANITY IN BANK OFFICIALS AND BANK FAILURES.—The recent failure of a Michigan bank because of the insanity of the cashier indicates the lack of value of the negative evidence given by laymen in cases of insanity. The Michigan case emphasizes the position taken by an American medical journal about two decades ago. (*American Medical Weekly*, Sept. 30, 1882.) The absurdity of non-medical evidence as to insanity, when of a negative character has been very well shown by two cases. A cashier of a Poughkeepsie bank was suddenly noticed to be very extravagant. This led to investigation and a defalcation was found. On examining the cashier's house, notes, drafts and money were found scattered over it, hidden in out of the way places; in some cases evidently for several years. The man was ultimately found to be suffering from well-marked paretic dementia and sent to an insane hospital. In this case keen business men had had the man under observation for several years, yet he committed criminal acts due to the onset of an easily diagnosticated form of insanity. In a second case a teller of a Troy bank was insane for several years before the trustees knew it. Meanwhile the cashier had been able by reason of the teller's infirmity to rob the bank and bring it to the verge of suspension. Here were two cases where business men might have been expected to detect the first sign of insanity since their interests were deeply concerned; but in both cases their pecuniary interests suffered because they failed to detect the preliminary symptoms of an exceedingly easily diagnosticated form of insanity. If keen business men fail to find evidences of insanity in cases where their interests are deeply concerned, how little value can be attached to their negative evidence in cases where their personal interests are not concerned but where life or death or personal property of others are at stake. Medical journals therefore which are citing the evidence of laymen as to the non-existence of insanity are doing the profession as little credit as if they cited lay testimony as evidences of the value of some copyrighted nostrum. This opinion as to the valueless nature of lay evidence in regard to the non-existence of in-

sanity has been strongly sustained by the frequently occurring instances in which paretic dements in positions of trust have been able to wreck the institutions with which they were connected.

ANIMAL SACRIFICE FOR HUMAN DISEASE.—In the vicinity of Topeka, Kansas, where the saloon smashing epidemic arose, a curious revival of the folklore practice of animal sacrifice for human disease has appeared. There is an epidemic of pneumonia which is being treated by applying the warm hide of a newly killed cat, to the chest. In Ireland this practice occurs in a less atrophied form in the shape of the sacrifice of an animal to a saint diety. An image of wood about two feet high, carved and painted like a woman was kept by one of the family of O'Herlebys in Ballyvorney, County Cork. When anyone has smallpox they send for it, sacrifice a sheep to it and wrap the skin about the sick person and the family eat the sheep. This was also done in Greece to placate Aesculapius. The phase between this last practice and the Kansas medicinal phase of folklore is illustrated in the transfer of disease to animals. Thus Gomme (Ethnology in Folklore) remarks that in the Scotch Highlands a cat was washed in the water which had served for the ablution of the invalid and was then set free. The origin of the practice was that of the sacrifice of a human being to the god, godling or fetich of disease.

CLERGYMEN AND HYSTERICS.—The recent attempt to kill Father Keller, by a husband, on the ground of criminal assault recalls to the *New York Medical Times*, (March. 1901,) the case of Bishop Underdonk who was accused by the wife of a young clergyman, of undue familiarity when on the way to ordain her husband. In this case the woman whom the bishop had known from childhood clearly misinterpreted the bishop's attempt to shield her from the weather. The husband allowed the bishop to ordain him and then after securing a living made the charge which ruined the bishop. N. P. Willis, the

poet, claimed in his newspaper that no assault could occur with a virtuous woman except the man was insane or drunk or the woman under an anaesthetic. This claim however, was by far too sweeping since it ignored the influence of fear and moral shock on the woman. Willis moreover (like lady-killers of the roué type) measured women from too lofty a standard of mental and physical perfection. The roué type of man like the prurient prude has peculiarly low views as to the status of the average woman. The Keller case suggests two factors; a hysteric wife egging on the jealousy of an inebriate husband. Jealousy is a very frequent concomitant of alcoholism. As E. C. Spitzka, Krafft-Ebing, Trélat, Stefanowski and others have shown (ALIENIST AND NEUROLOGIST, 1893,) persecutory delusions of alcoholists relate to the sexual organs, sexual relations and to poisoning. This fact is so constant a one that the combination of a delusion of multilation of the sexual organs with the delusion that the patient's food is poisoned and that his wife is unfaithful to him, may be considered as clearly to demonstrate the existence of alcoholic insanity, as any one group in mental pathology can prove anything. With this there are unpleasant hallucinations. The peculiarity of insane inebriates is that their acts are not consistently regulated by their delusions. Thus, one patient may live in comparative tranquility with a wife whom he suspects of committing adultery in the boldest way and before his face night after night. Another under the influence of the same delusion may, in mortal fear of being poisoned by her or her supposed paramour, kill his wife in a fit of blind fury. When a husband of this type is joined to a wife of the hysterical or extreme masturbatory type, the result is exceedingly dangerous to those with whom the couple are brought in contact. At the least, accusations of unchastity or at the most accusations of criminal assault, followed by homicidal attempts will result. As has been repeatedly pointed out in the ALIENIST AND NEUROLOGIST any charge of criminal assault not made soon after its occurrence should be viewed with suspicion, and the antecedents of the accuser carefully investigated.

SADISM IN CHILD NURSES.—A girl was recently sentenced in New York to six months in the penitentiary for cruelty to a babe. The mother noticed that whenever the babe was left with the nurse girl, it was always restless and in pain on her return. At length she discovered tooth marks upon the child's legs. The girl admitted biting the child because this procedure gave her intense pleasure.

MALARIA AND INSANITY.—Morandan de Monteyel has recently called attention to the influence (*Annals Medico-Psych*, January, 1901,) of malaria in precipitating the onset of paretic dementia. Malaria has long been recognized as producing by its toxaemic factors both acute and chronic psychoses. Sydenham (Works) was among the earliest practitioners to notice that malaria had at times mental symptoms. Ballarger (Annals Medico, Tome III, 1843,) found that malaria produced insanity of both the acute and chronic type. The first yielded readily to quinine; the last was rather intractable.

Griesinger ("Mental Pathology,") expresses the same opinion as to the chronic forms, and says further: "Here, too, a very different relation of the affections to each other is to be distinguished. In one, perhaps the smallest series of cases, in localities where intermittent fever is endemic, certain individuals are attacked, instead of ordinary ague, by an intermittent cerebral affection which manifests itself in regular, (tertian or quartan) attacks of insanity [so-called intermittens larvata.] There are here generally certain signs of the stages of the attack; yawning, rigors, heat, to be observed. The hot stage is most frequently complicated with cerebral congestion to such an extent as to produce mania. It is therefore, not an existing intermittent fever, but the epidemic cause of the fever, which is the cause of insanity. The periodic nature of the attacks, and especially great increase of temperature during the attack, together with the epidemic character of the fever, are the principal diagnostic signs. At other times, after an ordinary intermittent fever has lasted for a certain time, there appear, instead of the paroxysms of heat and cold—as if through a

eap of the affection—intermitting paroxysms of insanity [violent attacks of furor with delirium, also impulsive suicide during the fit.] These states often, with disappearance of decided periodicity, assume the remittent and continuous type, and pass into chronic mental diseases. Finally, there is a third mode of origin which is the most frequent of all: the insanity occurs as a disease consequent upon remittent fever which has disappeared, either in the early stage of convalescence, or not until several months after the cessation of the ague. It is especially after very protracted and severe (especially quartan) fevers that disorders remain which may produce insanity."

Fleming (Die Psychosen) reports the case of a young man who had five attacks of mental disorder on alternate days with the ague; he recovered under anti-malarial treatment. Pseudoangina pectoris preceded the attack. Dr. Hocke reports the case of a thirty year old laborer who never having had malaria took up residence (Alg. Zeitschrift f. Psych. B. V.,) in a fever-stricken district. One day he suddenly announced himself to be Christ, and those around him to be witches. The head was hot; the eyes red, and rolling wildly; the tongue white; epigastrium distended; the pulse somewhat rapid, not feverish; the feet cold. On application of ice to the shaven scalp, etc., the patient became calm, and during the two following days seemed to be mentally healthy. On the fourth day, exactly at the same hour, the same scene was repeated. A third attack occurred in the quartan type, but milder, short in duration, and succeeded by sweating; after this the symptoms disappeared under the use of quinine. In spite of the use of quinine, there occurred, after five weeks, a fourth attack of this periodic insanity, which, however, like a subsequent one—the last—finally gave way under the administration of quinine.

According to J. G. Kiernan (*Detroit Lancet* 1882-3) malaria causes all the psychoses usually due to conditions of exhaustion, as well as others in which the mental symptoms vicarate for the fever or chill. The chronic types are very intractable.

E. C. Spitzka has found (Insanity) that "malarial fever is sometimes accompanied by mental disturbances which may present a perfect imitation of cyclical insanity with lucid intervals corresponding to a period between the attacks. A chronic mental disorder, similar to that following the specific fevers, may result from the paludal dyscrasia." He reports a case in which a good-humored delirium in a child vicarated for the febrile attacks. W. A. Hammond (Neurologic Contributions) has had under observation cases varying from stupor to furor due to malaria. Clouston (Manual of Insanity) has seen cases where mental symptoms vicarated for the febrile phenomena.

Bucknill and Tuke (Psychological Medicine) are of the opinion that the types described by Griesinger correspond to those generally observed.

Drs. Lemoine and Chaumier (Annals Medico-Psych. 1883,) claim that mania may accompany an attack of intermittent fever in predisposed persons, and that old subjects of malaria with masked manifestations, are liable to recurrent intellectual disturbance, or to chronic insanity. Quinine gives good results in intermittent mania and its convalescence. It is of quite little value, apparently, in chronic cases, but even in these it may quiet transient attacks of agitation which are masked phenomena of the disease.

Ravel (Annals Medico-Psych. 1888,) expresses very similar opinions to Griesinger. Most of his cases are of the vicarating type. J. H. McBride, (*Medical Standard*, 1888,) has reported periodic delirium vicarating with malaria. It may be accepted as settled that any toxaemic state of chronic type may produce both the acute confusional psychoses as well as chronic suspicional irritable states.

INSANITY OF PREGNANCY, PUERPERIUM AND LACTATION.—Dr. W. G. Stearns in a paper read before the Chicago Academy of Medicine in a symposium on pregnancy states that the psychosis which commonly (Obstetrics, February, 1901,) develops during gestation is melancholia. Ushered in by a gradually deepening depression with

timidity and vague forebodings, later profound depression, undefined fear and despair, suicidal tendencies, refusal of food, and sometimes positive stupor, become the most prominent mental symptoms, but cannot be distinguished from those found in melancholia otherwise produced. In these cases the prognosis is of especial interest. When the psychosis is not the result or sequel of a previously existing mental disorder, but is purely accidental or primary the majority of patients recover before delivery. When secondary there is usually a gradual decline into dementia which may be either quickened or temporarily retarded by pregnancy. A few instantaneous recoveries upon parturition have been reported but abortion has not been found to cut short or in any way change the course of the disease. On the other hand a few patients continue melancholic up to the time of parturition, when they become acutely maniacal although recovering ultimately. In some cases of depression during the later months of pregnancy delivery may take place without any apparent pain and the child may die untended without there being any infanticidal intent.

It is very rare to have the onset of an acute insanity develop during labor although it be the time of greatest stress. When psychosis develops at this time it consists of a delirium usually transient and maniacal, with sudden impulses and a marked tendency to infanticide. Puerperal insanity is more frequent than either the insanity of pregnancy or lactation. While the psychoses developing in pregnancy and during lactation are chiefly melancholias, about two-thirds of the cases occurring during the puerperium are manias. The mania is most often characterized by an intense excitement, incoherence, garrulity with occasional outbursts of extreme violence of conduct. It is interesting to note that in all such cases there is a tendency to obscenity of language, indecent exposure, and lascivious conduct. The majority show delusions of persecution or intrigue, which often lead to ideas of suicide and homicide. Many mothers seriously attempt to take their own lives and many make fierce attempts to kill their children or husbands. Attempts to murder the offspring are

most frequent, and no woman suffering from this form of insanity should be brought in close relationship with her child. A determined aversion or at least an indifference to the newly born offspring is present in almost every case, and it often is so dominating as to lead to deceitful cunning acts to procure possession of the infant only to kill it. Seventy-five to eighty per cent recover in puerperal insanity in from two to nine months, but occasionally recoveries are delayed from two to three years. About ten per cent die and the remainder become chronically insane.

Lactational insanity may be any form of derangement, but it is oftener melancholia from exhaustion, particularly if another pregnancy or the return of the menses combine to deplete the nutritional supply of the system. The onset is usually sudden but is most commonly preceded by sleeplessness and a vague fear of impending danger together with the common physical signs of exhaustion. The aversion toward husband is more marked than that toward the child. In all other respects the disease differs in no essential from the insanity of pregnancy. About eighty per cent recover. The course is from three months to twelve months and occasionally a case does not recover under two or three years. Hallucinations are common.

The treatment and management of the psychoses occurring in the course of childbirth should differ in no essential manner from that of mental changes occurring at other times, excepting that much more can be expected of prophylactic treatment. The tendency for insanity to recur with each successive pregnancy is marked and by not permitting conception a second attack can usually be avoided. Wherever a tendency to insanity is suspected errors of nutrition and elimination should be anticipated and corrected. The patient should be made to follow out a prescribed rigid self discipline by which worry, anger, hyper-sensitiveness and capriciousness should be directly and indirectly combatted. This can be best done by prescription of a definite course of physical exercise, reading, social intercourse and recreation adapted to the patient and her environment with special instructions how to overcome irritability, worry, and anger.

Worry and anger are most depleting and often occasion an outbreak of acute insanity. The husband and family will often be found to need more severe discipline than the patient.

CARE OF THE FEEBLE-MINDED.—Dr. A. W. Wilmarth, before the American Medical Association 1900 differentiated the lower grades of mental deficiency, idiocy and imbecility, and the highest types of feeble-minded and backward children. He said that if at an early stage of mental development a child fails to note objects, lights, persons, sounds, etc., if these manifestations of intelligence be long delayed, it may be inferred that the child is deficient in sight or hearing. As delay in walking indicates backwardness in physical development or the presence of paralysis, so will delay in the development of speech be a sign of mental deficiency. If speech be wanting at four years, one may suspect permanent mental defect; if it does not develop at six years the suspicion becomes a certainty. At seven years the child emerges from the inquisitive stage when it asks all sorts of questions, answerable and unanswerable, about everything imaginable, and begins to analyze the facts gathered during that stage, putting them together into ideas. It is then that systematic teaching should begin. With feeble-minded children it is not a question of judgment or morals, but whether a defective child learns as much as a normal child does at the same age. After fifteen the diagnosis is comparatively easy. The treatment of feeble-minded children of the higher types should consist, in addition to the necessary medication for whatsoever physical ills be present, of systematic training of the mind in properly conducted institutions. The author believes that would arouse their imitative tendency, and give them the rivalry and companionship of an institution. In the family this cannot be done, at home the backward child is specially indulged.

We would add to this the importance of a physiological neurotherapy to conserve and rebuild and stimulate normal development.

EPILEPTIC HYPOTHERMIA.—*The Denver Medical Times* regards as a fact that periodically recurrent subnormal temperatures, as low as 34° C., are of common occurrence in epileptics.

PSYCHO-THERAPY.

HUMAN TEARS A REMEDY.—A physician *(Med. Times)* recently from Persia, says the natives still 'believe' human tears are a remedy for certain chronic diseases. At funerals the mourners are presented with a sponge to mop off the face and eyes, and after the burial these sponges are presented to the priest, who squeezes the tears into bottles, which he keeps. This custom is one of the oldest known in the East, and has probably been practised by the Persians for thousands of years. Mention is made of it in the Old Testament. This old custom of ages past still prevails in certain parts of Persia to-day.

BRAINS OF THREE HUNDRED SUICIDES EXAMINED.—Professor Meller of Kiel University, the renowned expert in mental diseases, as a result of autopsies made during five years on three hundred suicides, states that he found that the brains of forty-three per cent showed distinct malformation; twenty-nine per cent of the remainder were suffering at the time of their death from acute febrile inflammation, and one hundred and forty-three of the whole number had organs diseased by alcoholism.—*Phil. Med. Jour.*

PSYCHOTHERAPY OF PAIN.—Oppenheim (*Therapie Der Gegenwart*, March, 1900, *Med. Times*, May,) believes that pain, occurring in an extremity or circumscribed nerve area, is often designated as neuralgia, while more frequently it is of a psychogenetic origin, due to neurasthenia, hysteria, or hypochondriasis. As these varieties of pain have, up to the present time, defied various therapeutic measures, it is worthy of mention that the author claims to have cured several cases by psychotherapeutic means. By systematic

exercises he causes the patient to neglect the pain emanating from the affected area, in that the patient concentrates his or her entire attention upon some object, like the ticking of a watch. If this fails the patients are taught to direct their attention to two areas—one near the seat of pain, the other of some distance from it. The author claims, by these procedures, to have established insensibility in the former areas.

NEURO-PHYSIOLOGY.

EXPERIMENTAL RESEARCH ON THE COMPENSATION OF SENSORY ATAXIA.—A. Bickel. The benefit to be derived from systematic gymnastic exercises in tabes dorsalis is now generally recognized, and Bickel reports a number of experiments which throw some light on the mechanism of compensation. The sensory nerves of both hind legs were divided in dogs. In a few months the ataxia induced by this measure had become fully compensated. Both labyrinths were then extirpated and the ataxia returned as bad as before, and the compensation was never again complete. Extirpation of the labyrinths is never followed by ataxia, under other conditions. In other experiments, after compensation of the ataxia induced by dividing the sensory nerves of both hind legs, a portion of the cortical sensory-motor zone was removed and in this case also the sensory ataxia recurred. These experiments demonstrate that the compensation of the ataxia is not the result of a process of restitution in the limb whose sensory nerves have been severed, but is due to other organs, especially to the labyrinths and the cortial motor zone. Further research may reveal other portions of the nervous system which co-operate in the production of the compensation, possibly the thalamus opticus, the corpora quadrigemina and cerebellum. Experiments in this line are now in progress.—*Jour. A. M. A. Apr. 13.*

NEURO-PATHOLOGY.

NOTES ON THE INVASION OF THE CORTEX WITH LEUCOCYTES IN PARESIS. — The Pathologist's Second Assistant, Dr. Thos. P. Prout, of the New Jersey State Hospital, presents the following in his report on this subject:

We have in paresis then, a destructive process involving the individual cell elements of the cortex, more particularly the cells of the second layer. Large numbers of the nerve cell units ultimately disappear from the cortex.

The invasion of the cortex with leucocytes is one of the first sequences of nerve degeneration. Their mission is probably that of phagocytes, the removal of the nerve cell debris and toxic products, and they occurr in greatest numbers where the disease appears most active.

The active proliferation of the neuroglia is a more remote sequence of the destructive process. Inasmuch as a nerve cell must be taken by cells capable of proliferation, hence the neuroglia overgrowth.

Three illustrative plates accompany this report. See report for year 1900, Dr. B. D. Evans, Medical Director, Morris Plains, N. J.

SURGICAL NEURO-THERAPY.

DR. ROBERT T. MORRIS, professor of surgery in the New York Post-Graduate Medical School, (*Med. Record* Jan. 19, 1901,) Has transplanted ovarian tissue in a castrated woman, with subsequent and consequent pregnancy. A portion of healthy ovary was introduced through a split in the broad ligament, a portion of the ovary projecting into the peritoneal cavity, while its raw surface is in contact with that which has been exposed by splitting the broad ligament, the tube and its fimbriated extremity being intact.

This is quite as remarkable as Marion Sims semen transplantation and fecundation of a barren women.

THE

ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, JULY, 1901. No. 3.

Subscription $5.00 per Annum in Advance. $1.25 Single Copy.

CHAS. H. HUGHES, M. D., Editor.
Editorial Rooms, 3857 Olive Street.

HENRY L. HUGHES, Manager and Publisher.
Business Office, 3857 Olive Street.

This Journal is published quarterly between the first and fifteenth of January, April, July and October and subscribers failing to receive the Journal by the 20th of the month of issue will please notify us promptly.

EDITORIAL.

[*All Unsigned Editorials are written by the Editor.*]

TRAUMATIC PARALYSIS AND TABES without direct Cerebro-Spinal injury the *Mitteilungen n. d. Grengeb, der Med. Chir.* (*Jena*) VII, 4 and 5 contains the following interesting clinical record by C. Negro which contains a lesson for those neurologically benighted railway surgeons who still continue to maintain that only a sensible traumatism of the bony case of the cord can give rise to traumatic spinal disease. Under the caption Traumatic Tabes Dorsalis, reference may be found to this subject in the (*Jour. A. M. A.*) for April 13. "A teacher of gymnastics fell from the parallel bars, on his side, without hitting his head or spine directly. Paresis of the deltoid ensued, but yielded to massage. About four months after the traumatism, typical tabes dorsalis gradually developed. No symptoms of the kind had been noticed before the traumatism and there were no indications of syphilis or any other infection."

TENDON REFLEX AFTER LAMINECTOMY.—From the same source as the preceding we learn that Kausch in performing a laminectomy on a young woman, for a tubercular affection of the vertebræ, found the spinal cord completely divided transversely at the sixth and eighth dorsal vertebræ. The tendon reflexes and muscle tonus were at once completely abolished, but returned again, the former in twenty-four hours and the latter in forty-eight hours, and persisted unmodified afterwards. The patient lived five and one-half months; menstruation was normal.

DR. SHURTLEFF'S MENTAL ILLNESS.—The newspapers with their accustomed propensity for sensational exaggeration announce "an insanity expert is insane," referring to Dr. Geo. A. Shurtleff the venerable veteran alienist of Stockton, California, an octogenarian psychologist who, continuing too long and too strenuously at work broke down in brain and mind after great age had unfitted him for the stress of clinical psychiatric practice he imprudently too long continued in his old age.

Dr. Shurtleff is reported as dying of dementia, induced it is said by failure to cure his adopted daughter of insanity. "Several years ago" says the fiction framer of the associated press, "Dr. Shurtleff made a great effort to cure a married woman whose mind had given away. He counted on the birth of her child to effect a cure, but failed. The woman died and Dr. Shurtleff adopted the child, a girl, who became demented on attaining womanhood."

Wonderful story this, an old man past eighty years whose enthusiasm outlasts his capacity to endure the mental strain of one of the largest institutions for the insane in the United States, unwisely continues at his arduous work too long till a paralytic breakdown appears and later, after his resignation, senile dementia sets in, a little premature and precipitated perhaps by over brain strain in Dr. Shurtleff, for he was a man of extraordinary mental and physical strength for his years. Younger men by several score have broken in brain under the strain of Dr. Shurtleff's work at Stockton, and without the eroto-emotional romance trim-

mings such as the associated press reporter has seen fit to attach to the story of Stockton's veteran psychiater's cerebral affliction.

Shurtleff was a great, strong master in psychiatry whose abilities have made marked impress on the profession abroad as well as at home. He worked too long and too arduously for his years. Had he followed the precepts of his own experience in psychical hygiene he might have been spared to the world a little longer in full possession of his mental faculties, but he preferred to fight on with the younger men and fall upon the field of action, not so much to be censured after all, for such failures are born of unselfish devotion to the world's welfare in psychiatry. And what is to become of our daily press that holds no more to the truth the whole truth and nothing but the truth, but colors verity always with "Fancy's painted wings?"

Doctor Shurtleff was born in Carver, Plymouth County Mass., in 1819, and took up the study of medicine in Wareham, Mass., in 1842 and was graduated from the Vermont Medical College at Woodstock, Vt., in 1845. He commenced practice in Wareham immediately after graduation and continued in that work until 1849 when he came to California and settled in Stockton, where he has resided ever since. He was first appointed a director of the State Insane Asylum at Stockton in 1856, and in 1863 he was reappointed to that position. In 1865 he was elected medical superintendent of the State Insane Asylum, and continued in that office for many years, until he resigned to retire from active life in 1886. He was professor of mental diseases and medical jurisprudence in the medical department of the State University for many years, and resigned that position in 1886, when he was elected emeritus professor of the department.

NATIONAL ASSOCIATION FOR THE STUDY OF EPILEPSY.—The first annual meeting of the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics was held in Washington, D. C., May 14 and 15. Many papers of value were read and full reports of the

progress made in the care and treatment of epileptics in this country. The president is Hon. Wm. P. Letchworth, LL. D.; first vice-president, Frederick Peterson, M. D.; secretary, Wm. P. Spratling M. D.

PARTHENOGENESIS AND "CHRISTIAN SCIENCE."—One notion of primitive man still survives in one of the lowest Australian tribes which sturdily rejects the common opinion (*Frazer Fortnightly Review* 1899) that mankind are propagated by sexual union. Spirits (according to the philosophers of this tribe) are ever waiting for a favorable opportunity to be born into a bodily existence. When one of them sees his chance he pounces out on a passing girl or woman and enters into her. Then she conceives, and in due time gives birth to a child, who is a reincarnation of the spirit that darted into her. Whether a woman be young or old, matron or maid, she is liable to be thus impregnated. The spirits, on the whole, exhibit a preference for such as are young and fat. Accordingly, when a plump damsel who shrinks from the burden of maternity is obliged to pass one of the spots where the disembodied spirits are supposed to lurk, she disguises herself as a withered old hag and hobbles bent up double, leaning on a stick, wrinkling her smooth young face, and mumbling in a cracked, wheezy voice. "Don't come to me; I am an old woman."

In Annam, the spirits of children still-born or dying in infancy are held in great fear since they are "ever seeking to incorporate themselves in the bodies of others, though after so doing they are incapable of life." Their names are not mentioned in the presence of women for fear they might take to these. A newly-married woman is afraid to take anything from, or to wear clothing of a woman who has had such a child.

One instance of seeming "immaculate conception" was that of the sexual inverts reported by Duhensset where one sexual invert impregnates another with the semen of her husband still present in the vagina at the time of the invert relation. This however, is distinct from the occult side. The persistence of the occult in modern times is shown

by the attempt of an Italian Countess about a decade ago judicially to prove that her pregnancy (three years after the departure of her husband) was due to a visit from his astral body. The woman and husband were esoteric Buddhists. "Immaculate conception" is found in the lower phases of life, since the ovum as E. C. Spitzka pointed out about a quarter of a century ago, possesses inherent activity independently of fructification. The development in the female ovary of dermoid cysts (containing bones recognizable as maxillaries with teeth, hair, and skin, rudimentary intestinal, glandular, and cerebral traces,) in undoubted virgins, proves that the human ovum is capable of parthenogenetic development. While such development, so far as known to science, is always abortive, and while, as Washington Irving remarks, the ingenious maiden who to-day would attribute conception to any other cause than sexual congress would find it difficult to overcome popular prejudice, still embryology, while declaring immaculate generation improbable, does not pronounce it impossible. A worker bee is a highly-organized creature with a well developed nervous system, wonderful sense organs, intricate muscular apparatus, yet it may be an offspring of an unimpregnated queen bee. What is a regular occurrence in one class of animals is sometmes observed as an exceptional one in another class. If the startling and apparently miraculous nature of a living child be regarded as the sole objection to receiving such a fact, its defender might urge that the virgin generation of a dermoid cyst with all the traces, however aborted, of vertebrate organization, is only a shade less startling and miraculous.

Jacques Loeb two decades latter produced parthenogenesis in non-parthogenetic invertebrates by the use of normal salt solutions. Together with these physiologic views comes a return to the occult method of parthogenesis. Mother Eddy, the high Priestess of Christian Scientists, claims to have produced parthenogenesis in some female followers by a single course of "absent treatment. (*Huber Medical Record* April 20, 1981). The results of this startling discovery of Mother Eddy are of a magnitude and with con-

sequences hard to estimate. The opposition of the Christian Scientist to marriage indicated a need for this discovery. Doubtless immaculate conceptions will obtain among them, through this system of absent treatment to as great an extent as in Schweinfurth's "Heaven at Rockford, Ill.," whose numerous products of parthonegenesis (called "Children of the Holy Ghost,") are a matter of judicial record.—J.

DEMONOLOGY OF MICROBES AND APPENDICITIS.—Among the tenets of a sect of faith-curists in Oregon is the belief that microbes are imps and the appendix vermiform is the devil. The high priestess of the sect (the wife of Grant's attorney general) thus solemnly warns medical men against removal of the devil: "Now the scientists say this portion of the body is superfluous and injurious and that it should be removed. This is a master stroke on the devil's part. Was such subtility ever equaled? The devil says to his people: "I the devil have directed the doctors how to cut the devil out of you." My medical friends, don't you do it. You would have nothing more to do." The faithful starve the microbes and the devil out by abstaining from all food except crackers and claret. This sect which now numbers three hundred and fifty add a new religious instance to the many of "communicated insanity" in the United States.—G.

HYPNOTISM AND CAPITAL OPERATIONS.—The committee appointed at the instance of Louis XVI by the French Academy of Science to examine into the claims of Mesmer as to the medicinal and surgical value of what he called animal magnetism, now known as hypnotism, reported that the results depended on the impression made on the patient and that this impression varied with the individual constitution and hence was too uncertain to be depended on. This view has never been disproved although during the years that have elapsed since this 18th century report frequent attempts have been made to revive hypnotism as a method of surgical anaesthesia. During the forties of the

last century Dr. Dugas of Georgia employed hypnotism with success in one capital operation. Guislain according to Galt (Treatment of Insanity 1846) was of opinion that the results obtained by hypnotism were unsatisfactory. More than once had Guislain found hypnotism to produce mental disorder. According to Ennemoser the sleep produced by hypnotism was one of its most salutary properties. Sleep is the first of medicines in all diseases consisting in or accompanied by, an inordinate degree of excitement and over activity of the system. When once(in nervous affections, in fevers, in mental diseases, madness, etc.,) we can by any means procure sleep a crisis of amendment presents itself but in no case so strikingly and surely as in consequence of the sleep from mesmerism. Its great advantage is the avoidance of narcotics which, however immediate in their relief are through their deleterious action on the brain fatal to the subsequent healthy working of its different functions. This opinion expressed by Ennemoser nearly six decades ago, is still held by psychologists like Sudduth, who ignore the fact that hypnotism differs from ordinary sleep in being produced by a mental shock similar in nature and effects to the psychic insult which so often has serious consequences.—K.

HYPOTHERMIA AS AN EPILEPSY SYMPTOM.—Dr. Carlo Ceni has noted hypothermia in twelve out of twenty-four cases of epilepsy. It exhibited the characteristics of an epileptic crisis without involving consciousness. Sometimes it was observed thrice or more often in twenty-four hours. Usually it appeared periodically at intervals varying from a few days to a few weeks; sometimes (*Centrlbltt. f. Nervenh. und. Psych.*, Oct. 1900,) diurnal. Neither hypothermia nor its recurrence was in relation to the severity or appearance of epileptic symptoms. Dr. Henry Howard, of Montreal, Canada, called attention nearly twenty years ago (ALIENIST AND NEUROLOGIST, 1884,) to the significance of hypothermia in epilepsy. There is very little doubt that hypothermia is much more frequent in neurotic states than is usually

assumed. That hypothermia is far from infrequent with the chronic insane was pointed out by Kiernan (*Chicago Medical Review*, Feb. 1, 1882) especially in the case of epileptics and paretic dements. Among certain of the insane and certain neurotic subjects temperature may fall very low. Lowenhardt reports two cases of insanity in which the temperature was at various times 87°.5 F., 86°.6 F and 90°.5 F., these were cases of furor. Mendenhall cites a case of dementia in which the temperature was 90° F. Zenker has studied nine cases of insanity where the bodily heat was found to sink easily. It fell in three cases as low as 90°.6 F., and in one instance as low as 87°.06 F. Phenomena of this kind from what is known of the action of the nervous system on temperature are nothing more than might be expected. It may therefore be admitted that a patient having a temperature below 96° not in collapse must be assumed to be suffering from some neurosis presumably of a psychic kind. Fever, as Ott remarks ("Modern Antipyretics"), is set up by an increase of heat produced beyond that of heat dissipation; an agent from within or without deranging the harmony of the thermotaxic, thermogenetic and thermolytic apparatuses by which in the initial stage, the metabolism of the tissues is usually temporarily increased; this increment being greater than that generated upon a restricted amount of nutriment. Once established the fever continues not from excessive production but from an altered relation between heat production and heat dissipation. Fever is not a fire kept up by an excessive oxidation of the constituents of the economy. Thus heat production may really be subnormal yet the bodily temperature may be at a high fever heat. The thermotaxic centers of the brain so maintain the balance between heat production and heat dissipation as to keep the temperature at 98°.4 F. In fever these thermotaxic centers are so disordered that it is mainly the basal thermotaxic centers which are affected and the relation between heat production and heat dissipation is so altered that higher temperature results. Since the peripheral terminations of the sensory nerves influence a thermolytic center by reflex action, they

constitute important factors in heat regulation. The same conditions which interfere with the production of shock in the insane would tend to depress reactions from the peripheral terminations of the sensory nerve and would hence tend to depress temperature.

PROGNOSIS OF KATATONIA.—Kahlbaum in his demarcation of katatonia (*Die Katatonie* 1874) over a quarter of a century ago was of the opinion that this psychosis had a very favorable prognosis. J. G. Kiernan who was the first to recognize the existance of katatonia in the United States (*American Journal of Insanity* April 1877; AILENIST AND NEUROLOGIST 1882,) pointed out that prognosis in this psychosis as in all others marked by remissions, was unfavorable; the remissions being mistaken for cure. Kraepelin in an article recently translated by A. E. Brownrigg, (*American Journal of Insanity* Jan. 1901) takes a view as to the prognosis in katatonia which is very simular to that taken by Kiernan over two decades previously and for the same reasons. Kraepelin recognizes however that protracted duration of the psychoses does not necessarily imply incurability.

FALSE ACCUSATION OF RAPE.—A girl is Southern Illinois has lately admitted that on a "spite" accusation of criminal assault (due to Joseph-like conduct on the part of the accused) she and her sister sent an innocent man to the penitentiary. False accusations of this type are peculiarly frequent and as Edgar and J. C. Johnson remark (*Witthaus-Becker Medical Jurisprudence*) "the trouble lies often at the door of the physician who, in giving a certificate, makes false representations through ignorance. If he be not circumspect, the lies of a woman may unconsciously lead him to make a report favorable to her accusations. In the case of children, the mother's state of anxiety added to child's mis-statements are the first causes of error. Much sentiment has been wasted on the frankness of childhood. There is little if anything more false. In a charge of this kind the child finds herself a center of attraction and it

naturally increases her importance and makes her a heroine in her own eyes. Either she has learned her lesson by dint of her mother's inquiries repeated time and again or she has been taught, supposing the lie a deliberate one, until she can repeat it word for word. Suspicion should be aroused when the child tells her story as though gotten by rote with the same words, the same inflection, the same mistakes even. If interrupted she is confused and is perhaps obliged to go back and begin over. This examination should always be conducted away from the parent's prompting. Public sympathy aids even more in the prosecution of rape trials where children are concerned than where the charge is brought by an adult. The crime seems to arouse a horror in the public mind only satisfied by the sacrifice of some victim. If the physician, after making his examination writes out his report without consulting his feelings with as strict impartiality as the presiding judge in the trial, weighing all the considerations of the questions in his mind and above all testifying only to what he himself knows from what he has seen, the great disproportion between the true and the false in accusations of rape will be a thing of the past."

THEOLOGIC ORIGIN OF THE RIGHT AND WRONG KNOWLEDGE TEST.—The physician who speaks of the right and wrong knowledge test of forensic psychiatry as a legal doctrine ignores alike history and the principles of the common law and of Roman law. The doctrine was a purely theologic one which occasioned the famous controversy between Pascal and the Jesuits. When Pascal wrote his "Letters of a Provincial" one of his chief sources of information was according to H. C. Lee *(International Journal of Etchics* Vol. V.*)* a little book of wide circulation entitled *Somne des Pechez* by the Jesuit Father Bauny who taught that to render one's self guilty in the eyes of God it is necessary to recognize that God forbids a proposed act and nevertheless to perform it, or in other words that unless before committing an act there is full advertence that it is prohibited by God there is no sin in the commission.

Pascal of course had no difficulty in deducing the consequences of such doctrine and his epigrammatic exposition of them is not the least effective passage in his merciless assault. In reply to Pascal the Jesuites issued anonymously a work of Father Georges Pirot entitled *Apologie pour les Casuistes contre les calomnies des Jansenistes*. This perhaps probably enjoyed the honor of more condemnation by the Holy See, by universities and by bishops than any other. In it Father Pirot placed the excuse for sin rather on the ground of ignorance then of inadvertence. He claims that hardened sinners have neither light nor remorse while plunging into debauchery. If they have no knowledge of evil then all theologians agree that they sin not while committing acts that are more bestial than human.

Thus except among Gallican rigorists it became the accepted theory of the theologians that to constitute actual (or as it is called formal) sin there must be actual advertence that the act is sinful and that it is a violation of a precept of God. Sin thus became divided into what was designated as theologic and as philosophic, based on a remark of Aquinas that the theologians regard sin principally in respect to its being an offence to God while moral philosophers consider it in relation to its antagonism to right reason. The Peccatum Philosophicum thus was recognized to be a sin against reason but as the sinner does not advert to the transgression of the law of God it is not an offence to God and therefore not theologically a sin. Cramuel however argued that though it is not an offence to God as a legislator it is an offence to him as a creator and that therefore he can punish it if he sees fit. Although the Pope finally condemned this doctrine it still spreads to the Anglican theology and to no small degree so dominated it that judges at the behest of the House of Lords (the Anglican Bishop especially,) proceeded to declare in defiance of facts and history that the doctrine had always been a part of the common law. This judge-made law however was promulgated after the acquittal of McNaughton on the opposite doctrine of power to refrain. The statement so often made even in the law books that the right and wrong

knowledge doctrine was first promulgated by the judge in the McNaughton case is totally erroneous. The common law doctrine is in essence that enunciated in the case of Hopps vs. People (94 Ills.) where the power to refrain is the test of responsibility.

HOPE KILLING HOSPITAL NAMES.—The value of a buoyant psychotherapy is often not considered or disregarded in the naming of some of our hospitals and homes for the afflicted and the *Philadelphia Medical Journal* very properly calls attention to this depressing fact under the caption of "Objectionable Names for Institutions," meaning homes for incurable consumptives, cancer hospitals, feeble-minded institutions, (referring to the inmates of course), and a recently established hospital in England for the dying. These cheerless, hopeless names have no therapeutic warrant in clinical experience. "All hope abandon ye who enter here" were an appropriate accompanying inscription over their portals comporting well with their hope destroying designations. If while life is there is hope let us give the hopeless a chance to hope at least. Let that hope which "springs eternal in the human breast" receive no check from us while caring even for the hopeless. Give the afflicted, even though apparently incurable, the benefit of buoyant hopeful suggestion in the names of those abodes Charity provides even for despairing hopeless disease.

LEGISLATION AGAINST MARRIAGE OF DEGENERATES.—The Tri-State Medical Society in convention at Keokuk, Ia., April 2, took steps to secure legislation in Missouri, Iowa and Illinois preventing the marriage of physical and mental degenerates, and also favored the unsexing of habitual criminals. This action was urged by the retiring president, Dr. Henry Hatch, of Quincy, in his annual address and in conformity therewith were resolutions passed unanimously,

Whereas: There has been a well-recognized increase in the number of insane people and other forms of degenerates, and,

Whereas: A large portion of these are the direct progeny of those, who themselves are physical and mental perverts, and,

Whereas: The chief duties of the state are the protection of the health and morals of its citizens; therefore be it

Resolved, By the Tri-State Medical Society of Iowa, Illinois and Missouri; That we recommend to and petition the several Legislatures to enact laws preventing the marriage of well organized mental and physical degenerates, and that committees be appointed in each of the states represented in the society to carry this into effect.

The prayer of neurology is that some day the blind world may see and avert its neuropathic peril. This way safety lies. Pulpit orators may fruitlessly preach the decalogue till the aphonia of declamatory exhaustion falls upon them and unless the great fountain source of immorality and crime is shut off, their efforts will be but partly successful. Moral precepts for abundant fruition must fall on receptive soil, not on stony ground of neuropathic and psychopathic degeneracy and decadence.

TRANSITORY FRENZY has become such a well recognized psychosis that it is with some astonishment an alienist reads the following discussion by the British Medico-Psychologic Association. Dr. Wiglesworth (*Lancet*, March 9, 1901,) read a paper at a late meeting on Pure Homicidal Impulse. The homicide was committed by a woman in obedience to a sudden impulse. The patient never having shown while under his care any such tendency. Subsequent investigation revealed that her behavior at other institutions might have been so construed had the full facts been known. Dr. L. Weatherby reported a homicide committed by a seventeen-year-old lad. The victim was a farmer who gave the lad a "lift" in his cart and was stabbed to death while driving. The demeanor and character of the lad had changed from the time he received a railroad renal injury. Dr. Weatherby proved eccentric behavior from that date. The prison surgeon found nothing mentally abnormal. The boy was adjudged guilty. On strong representations

the sentence was altered to penal servitude. Dr. Boyle reported a case of homicide in which the alleged perpetrator denied all knowledge of the act. He claimed he could not remember anything beyond a certain time; but he gave a cogent history of his doings up to that time. The first thing he remembered afterwards was the attempt of the police surgeon to "stomach-pump" him. There was no family history of epilepsy. The father died from an apoplexy and one sister died insane. The patient had sunstroke some years ago. Dr. Weatherby asked whether it was possible for a non-epileptic to lose consciousness for several hours and to commit a crime during the period and then to regain normal mental control. Dr. R. H. Hoott suggested that in a few days the amnesia might pass off and then careful questioning might bring out a motive for the crime. Dr. Morrison related the case of a man with occasional homicidal impulse who had managed to conceal it owing to his fears of being placed in an asylum. One day on being found in a typical epileptiform attack he was closely questioned and the facts were then admitted. He appeared to have stuck pins all over his body during unconsciousness, and to have repeatedly stabbed the site of an inguinal hernia. Dr. Boyle's case might be one of *petit mal.* According to Dr. Robert Jones the subject of Dr. Wiglesworth's paper had been twice in Clayburg Asylum; once for six weeks and once for six months, but never showed homicidal tendency. The certificate for the second admission states that in another asylum she has threatened that she would "kill somebody". The fact that Dr. Boyle's case was regarded as "unconscious cerebration" by Dr. Wiglesworth will appear strange when the space devoted to transitory frenzy in English works like Tuke's Psychologic Dictionary is remembered.

FALSE SECONDARY SENSATIONS.—Under this title Dr. F. S. de Mendoza a decade ago (Arch. Intern. de Layrn., de Rhin. et d'Otologie March-April, 1891,) placed mental perceptions false, though physiologic of the special senses which in themselves have no real existence

but arise from an actual perception of another sense. The secondary sensations occur with all the senses but chiefly with that of sight. These phenomena, Dr. Mendoza entitles physiologic pseudo-aesthesic and divides them into five classes: Pseudo-photo-aesthesia, false vital secondary sensations; pseudo-acou-aesthesiae. false auditory secondary sensations; pseudo-phre-aesthesia, false olfactory secondary sensations; pseudo-gou-aesthesia, false gustatory secondary sensations, pseudo-apsix-aesthesia, false tactile secondary sensations. The most frequently observed are false sensations of color then followed in order of frequency, olfactory, gustatory, auditory and tactile. Each of these five classes may be subdivided into six according to whether the primary actual association be (in order of frequency) visual, auditory, olfactory, gustatory, tactile or occur merely in the intellect. Mendoza calls attention to the fact that noises may, in certain railroad men, create false perceptions of actual color. The false secondary sensation most frequently noticed is that of colored audition or the pseudo-acou-aesthesia of Mendoza. In a recent letter to *Science* a correspondent states that when intently listening to certain, but by no means all, eminent speakers, and to a few operatic singers of great renown we had distinctly detected, or rather have involuntarily become conscious of, an emanation of color from the head of the speaker or singer with each distinct tone of the voice. The more impassioned the words and tones, the more intense the color, and the larger the visible aureole or color area. The color has thus far been limited, with a few exceptions, to a transparent and ethereal but decided blue. It emanates suddenly with each explosion of sound, passes upward like a thin cloud of smoke, and fades like a swiftly dissolving view. He noticed it for the first time while listening to Prof. Felix Adler, later on when listening to Colonel Ingersoll, faintly over the head of William Winter; again quite distinctly in case of General Sherman and General Horace Porter, faintly in the case of some other public speakers, including Anna Dickinson, Helen Potter, the elocutionist, and some eminent divines, but not at all in case of President Cleveland and some other

equally prominent public men. In cases of singers, the most noted singers he recalls are the De Reszke brothers, Jean and Edward; Mme. Emma Eames, Lilli Lehmann, Mme. Albani, Vogel and Gudehus. In the case of Mme. Lehmann the blue color verged toward a liquid green, and with Albani it was a pale sheen of silver vapor. In case of Vogel, the tenor, the aureole was an evanescent and very pale straw color. In Mme. Mielke the blue became a velvety purple or violet. Mme. Nordica emitted an aureole of pale, translucent gold; Emma Juch gives me the impression of a delicate and liquid pink, while Patti seemed to emit no distinguishing color, but rather a kaleidoscopic blending of many colors.

The question arises whether this phenomenon be not in part pathologic. Binet who discussed the subject some years ago (*Popular Science Monthly* October, 1893) remarked that persons affected with colored audition form a curious illusion representing their psychologic conditions. Until they were questioned respecting their impressions they were satisfied that the faculty of coloring sounds was natural, normal and common to all. They learned the contrary not without uneasiness. One is never satisfied if he knows he possesses, deep in his mind an exceptional trait. All of that is exceptional seems abnormal and assumes the character of a disease. This opinion is that of many physicians, who would often have much difficulty in defining the condition of psychologic health but believe that whatever departs from that ideal and imperfectly understood condition is in the domain of pathology. Numerous authors who have written of colored audition have been laudably zealous in comforting those who perceive these impressions. Most have affirmed that it is purely physiologic. Binet believes they are fundamentally right—but is not certain how far. The fact, however, that these false secondary sensations are evidences of conscious mental processes demonstrates that there is either imperfection, disease or disturbance of association. The condition therefore indicates the presence of a new force in the organism which disturbs the physiologic balance and hence is pathologic. This view is further borne

out by the frequent appearance of these false secondary sensations in temporary or permanent conditions of nervous instability, in hysteria, in epileptics, in neuropaths, and degenerates. Colored audition in particular, as C. P. Pinckard has pointed out (*Journal of the Am. Med. Assoc.* Vol. XXXII.) is exceedingly frequent in hysterics. Binet displays the usual error of the psychologist in dealing with unanalyzed statistics. The normal individual of the psychologist is but too often a paranoiac whose mental state is taken at his own valuation. This element visited numerous researches of psychologists on hallucination like those of James. The false secondary sensation is a defect of association needing correction.—K.

CANCER MIRACLES.—The recently reported cure of cancer by faith recalls the fact pointed out long ago by surgeons that scirrhus sometimes spontaneously disappears, even after secondary envolvements have occurred. Of this Dr. W. Osler has reported (*American Medicine*, April 13, 1901) several instances. In the 1885 Annals de Lourdes a writer admitting that the effect of a strong impression on the imagination suffices to account for the sudden cure of conditions simulating and presenting all the symptoms of disease of the spine, paralysis and disease of the knee, which he terms *sine materia*, declares that nothing short of a miracle will account for disappearance of an organic lesion; an *alteration materille*. Dr. George Buchanan had been a severe critic of the alleged miracle at Lourdes. In order to confute Dr. Buchanan's arguments the case was cited of a forty-four-year-old woman who had a large tumor in the breast which had been regarded by Dr. Teuwin as cancer and had caused much pain. The woman at Lourdes May 1, 1885, used the water flowing from the grotto. She declared that the pain ceased, but the tumor remained. The following day she again used the water after which the tumor disappeared. On her return to Belgium she visited Dr. Teuwin who certifies that May 9th the tumor had completely disappeared. Granted that the tumor was not malignant it was at least a tumor. The cure cannot be

explained. The Lourdes man claims by confidence, imagination or any impression whatever. It is a phenomenon without analogy among those which are seen in hospitals or medical schools. Dr. Buchanan commenting on this claims (*Lancet*, Nov. 7, 1885) that the writer infers that it was an intance of direct divine interposition, a miraculous cure. The evidence rests on the certificate of a doctor who found a tumor in September and certified that it was gone in May—time enough for a tumor to disappear. But even if it disappeared as stated in forty-eight hours it was not necessarily miraculous. Tumors sometimes spontaneously disappear. This is most usually observed in adenoid tumors. The appearances of adenoid growths are simulated by very chronic inflammatory formations. Even tumors with all the external characteristics of scirrhus have been known to disappear. In 1870 a lady had a small tumor in the breast, which Buchanan and Syme believed to be scirrhus. This caused the lady such a state of fear and nervous dread that she had all the appearances and symptoms usually attributed to the "cancerous cachexia." In a few months her tumor was distinctly less. In a year it was completely gone. She regained perfect health. A lady under Buchanan's care suffered from a thyroid tumor so large as to threaten suffocation from pressure on the trachea, and so extending into the neck as to press on the recurrent laryngeal nerve and cause occasional glottis spasm. Sir James Simpson recommended her to live near a surgeon so that tracheotomy could be performed at once, if necessary, and she came to Glasgow. In a few days without any treatment the symptoms abated. After a few weeks the tumor had so completely diminished as to escape notice and she returned home in good health. A young woman had a large axillary adenoid tumor, which by its pressure caused great pain, and oedema of the hand and arm. The patient's friends refused operation and took her home to the Highlands. In a very short time the tumor began to decrease in size and entirely disappear. The most remarkable case with regard to suddenness occurred in connection with a submaxillary tumor. A girl about twelve years had a submaxillary tumor the size of a small hen's

egg. It was circumscribed and resistant. It was just possible that it might be a cystic ranula of the submaxillary gland. Dr. Buchanan explored it with a grooved needle but it proved to be solid. Next morning it decreased so much that he could with difficulty believe that it had been there twenty-four hours before. The following day all traces of it was gone. If this extraordinarily sudden disappearance without treatment, of an undoubted solid tumor had taken place after washing with holy water, or if it had been at Lourdes or Bethshan instead of in a surgical ward the case would have been triumphantly claimed as an example of direct miraculous interposition. Such coincidences are sufficiently numerous to make physicians refuse to accept the theory of divine interposition to account for some which take place at sacred spots while others unquestionably occur without direct appeal to miraculous intervention. A strong mental impression might have produced according to *Neurologic Review* (Vol. I.) sufficient trophic changes to have resulted in the phenomenon described. John Hunter long ago ("Posthumous Works," Vol. II,) reported that tumors which were in obedience to popular superstition stroked by the hand of an executed criminal were sometimes cured. Guislain ("LeCons Orales sur les Phreno-Pathies, p. 166) has reported cases in which fear produced gangrene of the breast. Mental influence of a non-religious type has produced trophic changes in tumors. There is hence no great improbability in a religious influence doing the same through ordinary non-supernatural means.

THE NEUROPATHIC AND PSYCHOPATHIC SEQUELLAE OF GRIPPE.—*The New York Medical Times* under this caption, commenting upon the recent death of Dr. William N. Guernsey, the peculiar circumstances attending it and the lesson it inculcates, thinks the subject calls for more than a passing notice.

About six weeks before his death he was confined to the house for a few days with an attack of grippe, which left him, as nearly all have been left this winter from the same trouble, depressed in spirit, and with great physical weak-

ness. The condition of his nervous system was such that he was greatly in need of rest and soon entirely unfit for either physical or mental labor.

The sad sequel in this case, an error of judgment and a medical mistake in his own case, ending his life, is only a repetition of an oft recurring and important lesson concerning the ignored neuropathic and neuro-psychopathic sequences of this grave toxic neurosis, which counts its victims both among physicians and patients. Neuralgias, neuritides, paralyses, pareses, phrenopathies, tremors, choreas, vertigos and other nerve center and periphery envolvements and the recrudescence of other toxic nerve center, as latent cerebral syphilis reawakened into morbid activity and rheumatic cardialgia are among our own permanently observed sequences of LaGrippe.

THE EXECUTIVE ABILITY OF THE DOCTOR OF MEDICINE is unjustly questioned by the *Medico-Legal Journal*. Referring to the membership of the Lunacy Commission of the State of New York:

"There is no objection, it patronizingly says, to having a physician on the Board, but he should not be at the head of it. The education of our physicians is such as not to fit them for the discharge of offices requiring great executive ability. They are contracted rather than expanded by their peculiar education."

This is absolutely absurd. What sort of medical men has Mr. Clark Bell, the editor thereof, come in contact with?

The strenuous and engrossing life of the all-around general practitioner often makes such exacting demands on his time through the necessary work and study, in the upbuilding of his period of his professional life as to compel him to refrain largely from public affairs in the United States and this had led laymen to misjudge the medical executive capacity. "An examination of the facts," says one who knows the doctor's capacity better, "shows," (and this has been our own observation) "that physicians as a class exhibit remarkable executive ability when placed in positions of responsibility." Compare the administration of hospitals

and charitable institutions generally that are in the hands of physicians and those which are governed by laymen. There is scarcely a hospital in the country that is under political control which does not compare very unfavorably with the same institutions under the care of medical men. The vast public health service in the management of epidemics, quarantine, and other questions, presents problems requiring the highest administrative ability for their solution. We appeal confidently to the record of our profession in administrative positions. We believe that it will show a higher record of successes and fewer failures than that of any other class. The record of Gen. Leonard Wood in the government of Cuba is an instance strikingly in point. He has increased the efficiency of the public school system tenfold, has added thousands of miles of new road, has suppressed brigandage, has opened four great orphanages, and provided every city of any importance with a public hospital, and all this without increasing the public debt of an already overburdened community.

In this record of Dr. Wood we see the value of a medical training in an executive position. "A well educated medical man must be well grounded in the sciences." *Medicine*, from which we quote, states the truth further, that a medical man "must be grounded in the sciences" "understand the body's physical needs and psychological states," and "underlying sociological factors which exert important influence on affairs of state," etc.

The trouble with medical men is that they do not plan the division of their time so as to mingle with down-town business men and do not come enough in contact with the world they live in outside of the sick-room and office and their exclusive medical sphere of influence and action.

The result is they are side-tracked and shelved in this country and men of less knowledge, ability and general fitness take their legitimate places to declaim the incompetency of doctors for executive functions and proclaim the superiority of inferior lawyers and laymen. In no respect does the education of physicians unfit them for the discharge of offices requiring great executive ability, any more than

lawyers or others not specially trained in lines of public service.

A doctor of medicine ought to make as good a President as a man from any other calling. Law not excepted and as good a man in the President's Cabinet as any other and better than most because the range of the rightly educated medical man's knowledge is greater in all that pertains to the welfare of a people. Fortunately the Governor of New York has not taken the view of the *Medico-Legal Journal.*

THE APPOINTMENT OF DR. PETERSEN ON THE LUNACY BOARD of New York is a good appointment apropos of what we have said in the preceding editorial. If all the states had a similar board and paid the same salary, $6,200, for service and expenses, it would be better for the states and their insane.

CALIFORNIA REDEEMED.—Under this head the *Cleveland Journal of Medicine* thus pertinently discourses: "The medical profession of America and the people of the United States, and especially of California, owe a debt of gratitude to the authorities of the United States Treasury who recently sent to San Francisco an expert commission to study the plague situation. The work of this commission, composed of the eminent pathologists—Flexner of the University of Pennsylvania, Novy of the University of Michigan, and Barker of the University of Chicago—has brought California to her own good senses. *Journal* readers will recall what has been said in these columns during the last few months concerning the criminal negligence, if not worse, of the California authorities, especially the Governor. In the *Journal of the American Medical Association* for April 13 there is published a "special article" on this question, giving a history of the unpleasant mess and detailing present conditions.

"It is a pleasure to learn that a group of prominent business men raised a voluntary fund to assist in exterminating the disease, and that they employed a physician of high character to investigate the facts and to give them an un-

prejudiced report. When the Federal Commission arrived in San Francisco its members were given every assistance in prosecuting their investigations by the Mayor, the City Board of Health, and especially the presidents of the various commercial bodies of the city. The Governor and friends failed entirely in their efforts to obstruct the work.

"During eight days of the Commission's stay in San Francisco six deaths from plague occurred in the Chinese quarter. Three of these cases were seen before death, and all six were definitely proved by pathologic and bacteriologic findings to be genuine cases of bubonic plague. The Commission telegraphed its findings to Washington, and reported also to the Mayor and Governor Gage. Greatly to his credit the Governor accepted the situation manfully, and at once took steps to aid in stamping out the disease. It is said that he claims to have been misled by a few physicians into his former unreasonable attitude.

"A delegation of leading citizens went to Washington and made arrangements with the Treasury Department to at once vigorously fight the contagion. The work has been placed in advisory charge of Surgeon T. H. White, of the Marine Hospital Sevice. * * * The situation is being met courageously and honestly with every prospect of successful termination. * * *

"Great harm has been done to California by the false statements of most of the newspapers and by the foolish attitude of many of the officials. Newspapers which should have been leaders in honesty chose to practice continual deception."

PROFESSIONAL REPRESENTATION IN THE PRESIDENT'S CABINET is certainly as pressing a necessity for the perfection of the Government of this grand and rapidly growing country, with its vast sanitary interests of many millions of people.

Not long ago Acting Assistant Surgeon Simpson, now at the Marine Hospital at St. Louis, had to be ordered to Colvert, I. T., to examine into the reports of the spread of smallpox there.

The Interior Department was first appealed to and then the Marine Hospital Service, a service legally of the sea, lake and river ports. The Marine Hospital Service has now to look after smallpox both in Oklahoma and Indian Territory, among the Kiowas, Comanches and Apaches on the Osage reservation and other places where it has been reported. It has also to look after the bubonic plague in San Francisco under Surgeon T. H. White of that service.

This is an incongruous state of affairs. The Marine Hospital Service was not organized for such work. But because of lack of a properly organized people's governmental Department of Sanitation, this work must now be done by a department to which it does not belong. Either the army or the Marine Hospital Service must do it.

Is it not about time there was a National Department of Sanitation and its chief in the President's Cabinet?

A Department of Sanitation and a Cabinet Sanitary officer should have been long ago made a part of the advisory and executive machinery of the Government.

WASHINGTON'S GOVERNOR AND MEDICAL PRACTICE.—Washington's Governor vetoed the medical practice act because it ruled out the osteopaths of that state and his own foolish views of medicine. He accuses physicians of "poisoning the springs of life," and calls "the contents of the drugstore perhaps more dangerous to the future well-being of the race than those of the saloon," the last being perhaps a politician's sop to the liquor trade. The spirit, however, of the extracts of the veto message that have been published, is generally that of a sanctimonious quack, who thinks he can libel an honorable class of fellow citizens with impunity from his official position. The members of the profession of the State of Washington should remember this insulting message, and like those of Colorado, previously mentioned in these columns, put an extinguisher upon the future political aspirations of their libeler.

FORCEFUL TEMPERATURE TAKING OF THE INSANE.—Doctor R. Erskine Johnson, of the medical staff of the State

Hospital for the Insane, Danville, Pa., was killed April 3, by a patient who has been in the institution many years.

The patient went to bed ill at noon and that evening Dr. Johnson entered the room to take his temperature. He was warned by the patient to keep away from the bed, and Doctor Johnson called an attendant to help him. The attendant held one hand of the patient, while the physician took the other, seating him on the side of the bed.

Disengaging his right hand, the patient struck Doctor Johnson several blows. The Doctor staggered out of the room, fell and died.

Insisting on taking the temperature under such circumstances was not wise. An experienced Alienist would have been more adroit. A delusion evidently prompted the patient's warning. A couple of attendants at another time might have obtained the temperature without exciting the patient to violence. Imperative action toward the insane is seldom good psychiatry.

Psychic wounds should not be torn open by the doctor. Absolute restraint and irresistable coercion are sometimes a necessity, as in forceful feeding to save life, but if attempted it should be done by overwhelming, gently applied force. The coercive taking of temperature in defiance of an insane patient's warning of violence, is dangerous to the patient and not justifiable psychiatrically.

THE PSYCHOLOGY OF CLERICAL MINISTRATION AT THE BEDSIDE OF THE SICK.—The orator at the commencement exercises of the Baltimore School of Medicine, the Reverend Doctor R. Harcourt, of Reading, Pennsylvania, April 12th last, made a rather startling address to the graduates on the subject of Ministers in the sick room, advising without much qualification that the clergy be kept from the sick, etc. The sort of clergyman Dr. Harcourt specially denounces in the sick room is objectionable but he has made his denunciation too sweeping in saying "they (as a class) are a great cause of alarm, tip-toeing about with a black book under their arms and whispering to the sick or dying person 'are you ready.'" But clergymen are not all like these.

"The sick room," he says, "is not a place for the transformation in the life of individuals." But it often is, as physicians can bear testimony and as has been testified by Scriptural illustration. The Centurion and his sick son for instance, whom the Master healed and converted.

Of course "when the Devil was sick, the Devil a saint would be. When the Devil got well, the Devil a saint was he," applies to some and not to others.

The Reverend Doctor Harcourt is not much of a psychological expert on the subject of sick room psychic sanitation. It is a question of temperament and time, the nature of the disease, the place, the person and the parson, all considered in their psycho-neural relations.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will meet on the 12th, 13th, and 14th of September, instead of the 10th, 11th, and 12th, as first announced at the Hotel Victory, Put-in-Bay Island, Lake Erie, O. The rate for the round trip will be one cent per mile. Tickets on sale as late as September 12th, good returning until September 15th. By depositing tickets with the Joint Agent at Cleveland and paying fifty cents, ticket may be extended until October 8th, giving members an opportunity of visiting the Pan-American Exposition at Buffalo, nearby. Full information as to rates can be obtained by addressing the Secretary. Those desiring to read papers should notify the Secretary, Dr. Henry E. Tuley, No. 111 West Kentucky Street, Louisville, Ky., at an early date. Profession cordially invited.

A HYPNOTIZER'S SUBJECT "KILLED IN ACTION."—A subject of Professor Farnsworth, Thomas Bolton by name, while going through the feat of resting head and heels on back tops of two extended chairs with the customary six hundred pound stone on his abdomen after a handy burly blacksmith went through the performance of attempting or pretending to attempt to break the stone with a sledge hammer, was killed lately (May 15th) at Woonsocket, R. I., by the chair slipping from under Bolton's head and Bolton

falling to the floor head first and the stone rolling on his head and crushing it. Farnsworth and Trask, the blacksmith, are reported under arrest. But such performances ought to be interdicted by law even though the hypnotized should be protected from the possibility of falling.

Such a blow, if honestly done with the necessary vigor to break the stone, unless already broken and cleverly put together, would harm the semilunar and solar plexuses. This performance, honest or fake, should not be allowed.

AN ALIENIST AND NEUROLOGIST FOR THE PENSION BUREAU.—An old army pensioner on the retired list since 1876 was recently dismissed the service in disgrace for signing pension calls in duplicate. A psychological inquiry into this disgraced army officer's mental state, by a jury of alienist experts would not fail to find, in all probability, senile amnesia and not criminal intent to account for the duplicate signature. At this time of life most men forget and repeat for the brain is much shrunken and its work feeble and tottering like the body. An alienist and neurologist in the Pension Bureau would not be out of place. Nor would such be misplaced on pension examining boards.

ANAESTHESIA EFFECTED DURING SLEEP.—Dr. P. G. Paugh in the May. 18th *Journal A. M. A.*, reports from St. Louis, May 4th, three children in whom chloroform anaesthesia was accomplished by him without waking them, preparatory to subsequent surgical procedure. This antagonized an expert view given in the Rice will case in New York City recently.

DELUSIONS OF ADULTERY like delusions of rape among morbid-minded women is the very proper subject of an editorial in the *Western Medical Journal* in which the said Journal concludes, that "for a woman to make a self-accusation of unchastity is beyond the usual order of mental aberrations."

Not at all. Old women among the insane beyond the menopause have been known to confess to the impossible in this regard and old men mentally deranged, incapable and without opportunity have told in delusive story of feats of sexual prowess to which both physical incapacity and impossible environment gave the lie. Much not now public knowledge will be known on this subject when medical men generally become better psychologists and alienists.

CHANGE IN EDITORSHIP OF BRAIN. A. de WATTVILLE AND PERCY SMITH.—After twenty years Dr. A. deWattville retires from the editorial conduct of our distinguished English contemporary periodical, *Brain*, and Dr. Percy Smith becomes his successor. Under de Wattville's able management *Brain* has made a distinguished place among the world's best neurologic journals and his distinguished successor will keep it there.

TRAINED NURSES AND THE INSANE.—The unsuitableness of the nurses trained only in general hospitals for the care of the insane and the neuropath has been frequently pointed out by neurologists and alienists. The recent developments in the Cook County, (Chicago), general hospital anent a restraint of alcoholic and senile cases adds additional emphasis to this opinion. It is somewhat unjust moreover that insane hospital training should be charged with deficiencies due to the training of a general hospital. In institutions for training nurses lay influence has entirely too much sway. As was pointed out by the *Chicago Medical Review* two decades ago the trained nurse urged and abetted by female philanthropists of the Jellaby stripe comes to regard him or herself as of more value than medical treatment and indulges in therapeutic vagaries of her own to the neglect of the physician's directions. This state of things has been repeatedly shown to exist. The *American Journal of Insanity* therefore is fully justified in pointing out that much of the newspaper condemnation of the treatment of the insane in public institutions which has resulted from an exposure of the methods pursued at the pavilion for the

insane connected with Bellevue Hospital (New York) is wide of the mark. Bellevue Hospital is a general hospital not designed as a hospital for the insane in any respect. The pavilion is simply a detention ward for the custody of insane persons or alcoholics picked up in the streets of New York until such time as they can be transferred to well-organized institutions for the care of the insane, or if alcoholics until they are in a condition to be set at liberty. The pavilions have no special organization for the efficient care of the insane and no responsible head to see that rules and regulations established for their conduct are carried out. Male nurses destitute of special experience in the care of the insane, coming to the discharge of their duties without previous discipline in wards for the insane, disqualified by a certain feeling of being superior to the work which seems inseparable from the nurse who has received training in a general hospital, have been guilty of acts of violence toward their helpless patients. The evil is a serious one. That it exists should not be any argument against treatment of the insane by competent skilled persons in public institutions under proper supervision. The present abuse is the legitimate result of the vicious state of affairs in the pavilion where unskilled nurses without adequate instruction and proper supervision have been assigned to the care of a most difficult and trying class of patients. The remedy is to place the pavilions for the insane under a competent and experienced head who is to be responsible for the proper treatment of his patients and to give him nurses who have been adequately instructed in the care of the insane and who have had sufficient practical experience in the work to undertake it without fear. Every year of added experience demonstrates that the nurse trained alone in a general hospital is wholly unfit to assume charge of the insane. It is the duty of the state or the municipality in every instance to furnish to detention hospitals physicians and nurses skilled in the treatment of the insane and experienced in the work. It is also a corresponding duty of those who in conduct training schools for nurses in hospitals for the insane to be certain that their graduates are fully trained for

this work by a proper discipline of the heart as well as of the hands and head. The calling of a mental nurse should be a vocation rather than a mere avocation. The training of the individual should not be technical and special but of such a character as to call into activity the higher qualities. Until the training school connected with a general hospital can do this no more should be said of the superiority of the trained nurse. The developments in the London Hospital for Epileptics and Paralytics has shown the defects of the trained nurse system to perfection. An additional remedy however is to place a medical man at the head of a medical institution. Neither the Cook County Hospital, Bellevue nor the London Hospital is under medical control. J.

THE NEUROTHERAPY OF SANTONIN in epilepsy and locomotor ataxia has attracted the attention of Negro of Turin and Lydston of Chicago, large doses being gradually reached. Lydston gives as much as fifteen grains three or four times a day and Negro fifteen centigrammes daily in broken doses and four hour intervals. Negro reasoned from the retina to the posterior root zones and columns of the cord, it being anaesthetic and analgesic to both.

Lydston's reasoning is heroically empirical, and in this respect not at all homeopathic. The homeopathic toxic fact, however, of large doses may justify its use as it attacks the brain, centers involved in epilepsy causing, in toxic doses, mydriases and convulsions with disturbed consciousness. The psychic color aura too of large doses of santonin may justify the trial of this drug. Hippocrates and Hahneman were close together in respect to the law of Similia as applied to some drugs, only Hahneman's law of Similia was as limitless as the vision of a Paretic and the delusion of "the smaller the dose the greater the potency", befogged him.

GRIP MELANCHOLIA—DEATH OF DOCTOR WILLIAM H. DALY.—Since Gowers and the editor of this magazine called first attention to the toxic potency of La Grippe over the central nervous system, this nerve poison neurosis has given many clinical confirmations of its often fatal

power. The neuralgias and neuritides which so frequently follow in its woeful wake are by no means its gravest sequences. The vagus and vaso-motor paralysis which so often mislead the general practitioner into the often fatal belief, when the lungs display its poisonous presence, that ordinary pneumonia is all the physician has to deal with and not a brain involvement of the pneumo-gastric nerve as its origin and the melancholias and other forms of madness which we so often see among the pernicious sequences of influenza give us daily reminders of La Grippe's fatal power over the nerve centers.

The latest instance of grippe's fatality, in our own ranks, appears in one of our great and splendidly endowed physicians. This recent and most lamentable confirmation of the grippe's destructive power comes to us in the surprising announcement of the suicide of our friend Doctor William Hudson Daly, under its fatal self-destructive impulsions—Daly the strong of brain, towering among us a jovial giant, athletic in mind and body. He was one of the chief surgeons of volunteers during the war with Spain and close friend of General Miles. The strain of a great bereavement, the worry of the embalmed beef investigation with which he was closely connected and the final brain-break of a supervening grippe last winter finished his fair and famous career in fatal melancholy.

Our friend shot himself to death at his home in Pittsburg, June 9th. He would never have done it in his normal state of mind. It was the grippe that did it. Several months of mental depression preceded the deed, after the ordinary but less serious symptoms of influenza had disappeared. The gravity of grippe, as all neurologists now know, is in its nerve center sequences. In its consequences grippe is a disease to beware of like a murderous thief in the house at night; till you are well assured he is safely off the premises.

We tender sincere sympathy to those in his family who are nearer than ourselves. They and we have lost much in the passing beyond of the good, great, genial Doctor Daly.

REVIEWS, BOOK NOTICES, REPRINTS, ETC.

PRACTICAL URANALYSIS AND URINARY DIAGNOSIS. A Manual for the Use of Physicians, Surgeons, and Students, by Charles W. Purdy, LL.D., M.D., Queens University, Fellow of the Royal College of Physicians and Surgeons, Kingston, Canada; Professor of Clinical Medicine at the Chicago Post-Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys", also of "Diabetes: Its Causes, Symptoms, and Treatment." Fifth revised and enlarged edition. With numerous illustrations, including photo-engravings, colored plates, and tables for estimating total solids from specific gravity, chlorides, phosphates, sulphates, albumin, reaction of proteids, sugar, etc., etc., in urine. 6x9 inches. Pages XVI—406. Extra cloth, $3.00, net. F. A. Davis Company, 1914-16 Cherry Street, Philadelphia.

This valuable book, like Barr's Primer of Psychology, is all that its title implies. It has been found to be of proven value by the chemical and microscopical analyst of our medical staff and practice office. The F. A. Davis Company, Philadelphia, put out no better book.

EXPERIMENTAL RESEARCH SHOWING THAT URIC ACID SECRETION IS NOT REGULARLY DIMINISHED IN THE PERIOD PRECEDING EPILEPTIC SEIZURES, by James J. Putnam, M.D., of Boston, Mass., and Frantz Pfaff, M.D., of Boston, Mass. Extracted from *The American Journal of the Medical Sciences*. This paper opens as follows:

The toxic theory of the disease-processes, and especially of the periodical and occasional neuroses and psychoses, has

so warmly commended itself to the minds of physicians of our generation, and has been utilized with such eagerness as a basis of therapeutics, that sufficient pause has not often been made to ascertain whether the data on which the clinical statements have been based would stand the searching test of really accurate and critical analysis.

For my own part, I believe that the point of view itself has often been wrong, and that, at least so far as the neuroses and psychoses are concerned, it may prove that the toxic theory of their pathogenesis should take a subordinate place, and that a more fruitful line of research would be one that looks on these affections as caricatures of normal states, their peculiarities being expressible, no doubt, in chemical terms, it may turn out, in those of physiological reaction or anatomical structure.

This search for toxic causes has naturally been especially active with regard to epilepsy, and has been held by many observers as representing, indeed, the only rational outlook for an explanation of its symptoms, though of late the "inhibition" theory, as expressed, among others, by Oddi, the Italian physiologist, has been advanced as a promising alternative.

Its further perusal will interest you.

"THE MOST USEFUL CITIZEN:" A STUDY IN HUMAN DYNAMICS, by F. W. Langdon, M.D., of Cincinnati, Ohio. Reprinted from *American Medicine*, April, 1901.

This is an interesting and original story by the able author in which he quite satisfactorily answers the question proposed in this paper. The subject is introduced as follows:

The problem, "what constitutes the most desirable unit of our modern civilization?" is one of which a solution is of great importance to the anthropologist, the political economist and the philanthropist.

The physician is, or should be, in a position to point the way to its solution since its more important factors come almost continually under his observation. Even the medical man, however, needs an occasional broadening of his field

of vision if he desires to avoid that modern tendency to anthropological hysteria, which seems to pervade the school, the stage, the press, and even the pulpit; and by reason of which only the marvelous is deemed worthy of serious consideration.

LES AMOUREUX DE LA DOLEUR, by Dr. P. Dheur, Paris, France, Société d' Editions Scientifiques, 1900.

This is a dicussion of sexual phenomena in the domain of algophily. Dr. Dheur claims that both sadism and subjectivism or passivism are at bottom psychologically alike, in that both depend on a love of pain either in the individual himself or in others. The author discusses algophily as occurring in mental degeneracy, in acquired insanity and in mystics. The author hardly appreciates the complex phenomena involved and errs too much on the simplicity side. Algophily in mystics is an exceedingly complex phenomenon. In it are often united sadism, subjectivism as well as religiosity. The mystic subjects his body to torture as an enemy of his soul and rejoices over the victory gained by the soul at the expense of the body. In these cases there is a phantom "ego" created at the expense of the real "ego."

LITTLE TALKS ON ASTRONOMY comes to us with the compliments of the enterprising Sultan Drug Company, who put Seng and Cactina so pleasingly before the profession. The Sultan Drug Company sugar-coats their estimable products with this diverting literature of the heavens, in attractive form by Doctor Ralcy Halsted Bell, the poet editor of the *Raven*. If the little book interests you as it has interested us address Sultan Drug Company, St. Louis, for succeeding numbers.

SENN—PRINCIPLES OF SURGERY need no send off from us. Senn and his books speak better for themselves than others can speak for them. Such a large number of our readers are connected with surgical work that we are glad to have an opportunity to commend this great

work. It is up-to-date and by a master of the knife and surgical diagnosis. The publishers are F. A. Davis Company, 1914 and 1916 Cherry street, Philadelphia. N. Senn, M. D., Professor of surgery in Rush Medical College University of Chicago; Surgeon-General of Illinois; Late Lieutenant-Colonel of United States Volunteers and Chief of the Operating-staff with the Army in the field during the Spanish-American War. This is the third and revised edition with two-hundred and thirty wood-engravings, half-tones, and colored illustrations. Royal Octavo. Pages, xiv—700. Extra Cloth, $4.50, Net; Sheep or Half-Russia, $5.50, Net. Delivered.

A TEXT BOOK OF PATHOLOGY IN RELATION TO MENTAL DISEASES by W. Ford Robertson, Pathologist to the Scottish Asylums. Illustrated with sixteen lithographic plates, in black and in colors and thirteen engravings from the press of William F. Clay, 18 Linot Place 1900 is before us.

The book is the completion of an enterprise commenced by Dr. James Middlemass and the author named in 1894 when both were on the staff of the Royal Edinburgh Asylum. Drawn therefore from clinical sources of competent experience and presented to the profession by capable clinical draughtsmen. The work is every way worthy of a valued place beside the master work of Bevan Lewis on the library shelves of practical Alienists and Neurologists. It is a gratification to see work like this one of Ford Robertson and his college offered the profession in such pleasing form for perusal, and so instructive and replete in materials.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A practical exposition of the methods, other than drug-giving, useful in the treatment of the sick and in the prevention of diseases by American, English, French, and German authors and edited by Solomon Solis Cohen, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Med-

ical College, Etc. In eleven handsome Octavo volumes with many illustrations, maps, and full-page plates. Price for the complete set, cloth binding, $22.00. P. Blakiston's Son & Co., Publishers 1012 Walnut Street, Philadelphia. From an examination of the first volume and the character of books put forth by this well-known publishing house as well as from the reputation of the editor and several authors this promises to be an exceedingly valuable and timely addition to the published therapeutics of our time.

1 FRIEDLAENDER, EINFLUSS DES TYPHUS ABDOMINALIS AUF DAS CENTRAL NERVEN SYSTEM. Preis M. 6. S. Karger, Verlagsbuchhandlung für Medicine, Berlin, Karlstrasse 15.

Besides the pathological anatomy and the masterly clinical descriptions of the able author the chapter, "typhoid and the post-typhoid nervous morbid implication und der typhöselice psychosen und neurosen" will especially interest the neurologist and alienist.

THE PHYSICAL CAUSES OF INSANITY AND DEATH as shown by the records of the State Hospital for the Insane, at Norristown, Penn., Dr. David Dorrington Richardson, Physician-in-Chief.

These records show quite as complete as we have ever seen shown in insane hospital records. How like other people and from like causes the insane get sick and then insane, and then die, and how like other people they contract intercurrently physical disease from which they die.

CHURCH AND PETERSEN have in press a second edition of their text book on Neurology and Psychiatry. This is very soon after the first edition and speaks well for the favorable reception of their excellent work. W. B. Saunders, 925 Walnut Street, Philadelphia, is the publisher.

LA PRATIQUE DE LA MEDECINE MENTALE—CONFERENCES Faites, Avec L'Autorisation du Conseil se L'Universite, A L'ecole Pratique de la Faculte de Medicine de Lille. par Le Dr. P. Keraval, Laureat de la Faculte de

Paris, Directeur-Medecine de L'Asile d'Armentiers (Nord)—PARIS—Vigot Feres, Editeures, 23, Place de L'Ecole de Medecine–1901.

The above is a commendatory and brief contribution to the literature of Neurology.

JOHNS HOPKINS REPORTS VOL. VIII, NOS. 3-9. The principal contributions of this volume of interest to Neurologists are: Report of a case of Typhoid with early Oculo-Motor Paresis, and Hemiplegia in Typhoid, the former by Charles P. Emerson and the latter by Wm. Osler. All the xvii articles are interesting and valuable, especially observations on the blood in typhoid by Wm. Sidney Thayer.

EPILEPSIE by Dr. Paul Kovalesky, member of the Medico-Psychological Society of Paris; Corresponding member of the New York Academy or Anthropology; Member of the Medico-Psychological Society of London; Honorary member of the American Association for the cure of Inebriates; Member of the Medico-Legal Society of New York, Etc.

THE LOGIC OF NERVOUS AILMENT THERAPY. This is a remarkably good little anonymous brochure on the subject of hypophosphites. Carrying the ad of Fellows' Hypophosphites on the inside back cover we judge it emanates from the well-known and meritorious firm of Mr. Fellows, 26 Christopher Street, N. Y.

SELF-EXAMINATION. Containing 3,500 questions with references to answers, also the questions of the examining boards of Pennsylvania, New York, and Illinois, is a useful book now in its third edition which retails for ten cents and is published by P. Blakiston's Sons, of Philadelphia.

POTTS AND GALLANDET have gotten out a valuable little ready reference Manual of Nervous and Mental Diseases for Students and Practitioners. Lea Brothers & Co.,New York and Philadelphia, are the well-known publishers.

LUDWIG EDINGER'S ANATOMY OF THE CENTRAL NERVOUS SYSTEM, translated by Hall, Holland and Carlton, is one of the best books of its kind now before the American profession. The plates are very modern, many and well chosen. The F. A. Davis Co., are the publishers. Philadelphia, New York and Chicago.

MYELITIS UND SEHNERVENENTZÜNDUNG, von Dr. Max Bielschowsky, mit 4 tafeln and 3 Abbildungen im text. S. Karger, Verlagsbuchhandlung für Medicin, Berlin, N. W. 6., Karl-Strasse 15.

PROGRESSIVE MEDICINE, Vov. I., 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeuties and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 430 pages, 11 illustrations. Per annum, in four cloth-bound volumes, $10. Lea Brothers & Co., Philadelphia and New York.

DE LA REGENERASION como ley opuesta A la Degeneración Mórbida. Communicaión enviada al Congreso Médico Latino-Americano de Santiago de Chile, (25-31 de Diciembre de 1900,) por el Doctor Francisco de Veyga, Professor de Medicina Legal Cirujano de Ejército. (*De La Semana Medica*, números 3 y 4, 1901.)

DIFFUSE DEGENERATION of the Spinal Cord—A Clinical Analysis of Fifty Cases, by James J. Putnam, M.D., and a Pathological Study of Five Cases, by E. W. Taylor, M.D., is a valuable addition to the literature.

THE DANGER AND HARMFULNESS of Patent Medicine, by Mrs. Martha M. Allen is a well-timed blow at the vile patent medicine frauds practiced by the Press, the Preachers and Nostrum venders.

A PRELIMINARY COMMUNICATION of a Study of the Brains of Two Distinguished Physicians, Father and Son. By Edward Anthony Spitzka, S.M., of New York City.

SUSCEPTIBILITY TO DISEASE and Physical Development in College Women. By Arthur McDonald, of Washington, D. C.

Combined Sclerosis of Lichtheim-Putnam-Dana Type Accompanying Pernicious Anaemia. By M. A. Brown, M. D .,F. W. Langdon, M. D., and D. I. Wolfstein, M. D., of Cincinnati, Ohio.

Second Annual Message of Sam'l. H. Ashbridge Mayor, and The Annual Report of the President of the Philadelphia Department of Correction and Charities.

Common Sense Tonic Medication, with illustrative cases. By A. W. Duvall, M.D., Philadelphia, Pa. Confirming the value of Gray's Glycerine Tonic.

On the Use of a New, Safe and Efficient Hypnotic in the Treatment of the Insane: Chloretone. By J. Percy Wade, M.D., of Catonsville, Md.

Sarcoma of the Intestines, with table of Fifteen Cases of Resection. By C. Van Zwalenburg, M.D., Riverside Calif.

A Case of Gastric Carcinoma, treated successfully with platinic chloride, by John Murray, M.D., of Carbon Hill, Ill.

Affections of the Eye and its Appendage in Brights Disease. By William Cheatham, M. D., of Louisville, Ky.

The Present Status of the Treatment of Prostatic Hypertrophy in the U. S., by Ramon Guiteras, M.D., New York.

The Practice of Medicine and Surgery in the Higher Altitudes. By R. Harvey Reed, M.D., Rock Spring, Wyo.

The State Laws of Wyoming in Reference to Contagious Diseases. By R. H. Reed, Rock Springs, Wyoming.

Eighth Annual Report of the State Charities Aid Association to the New York State Commission in Lunacy.

The Teaching of Ophthalmology in Medical Colleges. By F. L. Henderson, M.D., St. Louis.

A Case of Acquired Regular Corneal Astigmatism. By F. L. Henderson, M.D., St. Louis.

Lithaemic Affections of the Skin and Mucous Membranes. By A. B. Conklin, M.D.

A Case of Tuberculosis of the Conjunctive. By F. L. Henderson, M.D., St. Louis, Mo.

Amyotrophic Lateral Sclerosis and Postero-lateral Sclerosis. By F. Savary Pearce.

Closure of Cutaneous Wounds without Suture. By H. Lilienthal, M.D., New York.

Twenty-seventh Annual Report of the Superintendent of the Cincinnati Sanitarium.

Baths and Gymnastics in Arterio Sclerosis. By M. J. Groedel, of Bad-Nauheim.

A Psychological Study of Emile Zola. By Dr. Arthur McDonald of Washington.

A Plan for the Study of Man. By Arthur McDonald, of Washington, D. C.

Neurasthenia and Its Treatment. By Henry V. Ostrander, M.D., Brooklyn, N. Y.

A Biographical Sketch of the late Dr. John C. Shaw. By. B. Onufrowicz.

Resection of the Rectum per Vaginum. By John B. Murphy, Chicago.

Heart Disease or Epilepsy. By F. Savary Pearce, M. D., Philadelphia.

Annual Report of the Protestant Hospital for the Insane of Montreal, Que.

Aseptic Minor Gynecology. B. A. H. Goelet, M. D., New York City.

Pelvic and Nervous Diseases. By Dr. H. A. Tomlinson, St. Peter, Minn.

Delirium Tremens. By Chas. J. Douglas, M. D., of Boston, Mass.

Official Reports of the State Hospital for the Insane at Danville, Pa.

Ileus Caused by Neoplasms. By A. J. Ochner, M.D., of Chicago.

Fifteenth Annual Report State Lunatic Hospital at Harrisburg, Pa.

The Treatment of Pneumonia. By F. Neuhoff, M. D., St. Louis.

Traumatism Inflicted by Animals. By R. H. Reed, Wyoming.

Degeneracy. By Orpheus Evarts, M.D., of Cincinnati, Ohio.

Uterine Cancer. By H. S. Crossen, M.D., St. Louis.

MELLIN'S FOOD

Mellin's Food is not a medicine, but proper and satisfactory substitute or mother's milk when the natural ourishment cannot be obtained. Because Mellin's Food contains the ecessary nutritive elements in the roper proportions and quantities, he infant's development is natural nd complete and prepares a foundaon for future health and activity.

SAMPLES AND LITERATURE TO PHYSICIANS FREE UPON REQUEST.

ELLIN'S FOOD COMPANY, BOSTON, MASS.

PUBLISHERS' DEPARTMENT.

CLINICAL EXPERIENCE WITH ADRENALIN.—The aqueous extract of the suprarenal gland is perhaps the best culture medium known. Its instability, the involved method of preparation, its unsightliness, and the inexactitude of its various strengths tend to make welcome a preparation that is exact, stable and above all, clean. Dr. Jokichi Takamine undertook the task of isolating the active principle of the suprarenal gland, obtaining from it a stable, pure crystalline which he has named "Adrenalin." It raises the blood pressure. Emil Mayer, M. D., (*Philadelphia Medical Journal*, April 27, 1901.) has used solutions of Adrenalin Chloride, one to one-thousand, one to five-thousand, and one to ten-thousand, in rhinological practice. Bleaching of tissues followed the use of the strongest, in a few seconds, and was very thorough. No constitutional disturbances. Thirty-five cases are reported showing the usual effect of the aqueous extract of the suprarenal gland. A few cases bled freely, but the hemorrhage was promptly checked by a second application of Adrenalin. The Adrenalin proved not only a hemostatic, but a diagnostic aid, and valuable for the continuous treatment of acute inflammatory affections of the accessory sinuses. Dr. Mayer concludes that: Adrenalin solutions fulfill every indication of the aqueous extract, are sterile and keep indefinitely and are safe. Solutions, 1 : 1,000 are strong enough for operative work; and 1 : 5,000 and 1 : 10,000 for local medication.

In a paper read before the Chicago Laryngological and Climatological Association, W. E. Casselberry, M. D., called attention to the similar facts in relation to Adrenalin Chloride Solution and expresses the opinion that Adrenalin

INFLUENZA

"One part 'VIN MARIANI' with two parts boiling water, sweetened to the taste, add cloves and cinnamon, makes a grog of exquisite flavor, which produces immediate beneficial effect in severe cases of cold attended by convulsive coughing."

H. Libermann, M. D.,
Surgeon General, French Army.

LA GRIPPE

"Influenza (La Grippe), where patients suffer with high fever, catarrh in the head, and complete prostration, the most effectual adjuvant in treatment is a strong, generous, diffusible tonic, such as 'VIN MARIANI,' plain, also in form of hot grog."

Dr. Cyrus Edson,
Chief of Health Department,
New York.

Impotency Cases

ati not how hopeless; cured or relieved by our combination.

Helantha Compound.

an s annuus [sunflower.] Fr. root, bark, H. Australian. Plain or with diuretic.

a owerful action upon the blood and entire organism, is in- ec **all cases** complicated with **Malaria, Scrofula,** im- ri d Blood, Anaemia, etc., etc., in conjunction with Pil Orient- (T npson), will control the most obstinate cases of **Impo-** cy "Drink Cure" cases, saturated with Strychnine, "Weak es, who tried all the advertised "cures" for impotency, w poisoned with Phosphorus compounds, readily yield to tr ment. Pil Orientalis (Thompson) contains the Extract ro Orientalis.

Th herapeutical value of this Extract as a **powerful Nerve** E in tonic, and **powerful stimulant of the Repro-** ti **Organs in both Sexes, cannot be over-esti-** e It is not an irritant to the organs of generation, but A JP ATOR and SUPPORTER, and has been known to the native ats India, Burmah and Ceylon for ages, and has been a harem nt all countries where the Islam has planted the standard of ga .

I impossible to send free samples to exhibit in Impotency s, uiring several weeks treatment, but we are always willing nd mplimentary packages of each preparation, (with formulas m al testimonials) to physicians who are not acquainted th merits.

s: Helantha Compound, $1.85 per oz. Powder or Capsules. Pil Orientalis (Thompson) $1.00 per box.

IMUNE TABLET COMPANY, WASHINGTON, D. C.

AGNTS:
Meyer Bros. Drug Co., St. Louis.
Lord, Owen & Co., Chicago.
Evans-Smith Drug Co., Kansas City.
Redington & Co., San Francisco.
J. L. Lyons & Co., New Orleans.

CLARK
ENGRAVING CO.
MEANS—THAT YOU CAN GET HIGH GRADE CUTS FOR ANY KIND OF LETTER PRESS PRINTING——AT 84 MASON ST. MILWAUKEE

HALFTONES ON ZINC OR COPPER
WOOD ENGRAVING COMMERCIAL & PHOTOGRAPHY
ORIGINAL DESIGNERS & ARTISTS

should afford relief in asthma associated with bronchitis and vaso-motor paralysis. It may be formed into an ointment with vaseline, or mixed with stearate of zinc, powdered starch, or sugar of milk for nasal or laryngeal insufflation.

LAXATION OF CONSTIPATION—By J. A. Rene, M. D., West Superior, Wis. The successful treatment of constipation does not consist in simply momentarily relieving the overloaded intestinal organs, because some of the pathological conditions co-existing may persist even after this result has been obtained.

The fact that there is an intimate association between the intestinal and cerebral functions was early recognized by the ancients—a fact that shows the need of attending to the cerebral disturbance while correcting the pathological conditions of the gastro-intestinal tract.

The habitual use of purgatives is not to be encouraged, as it only increases the disability which they are intended to remove; and therefore it is essential that the treatment should be one aiming at permanent results as well as relief. And for that reason it is very often necessary to combine drugs that will not only relieve the constipation, but also cure the other pathological conditions which might have been the primary cause of the constipation, or have been brought about by the constipation itself.

Of late years many preparations have been placed at the disposition of physicians, and some of these preparations are certainly scientific combinations. Most of them contain such splendid remedies as belladona, aloes, cascarin, etc., but of all the recent preparations which have come to my notice I have found the Laxative Antikamnia & Quinine Tablets to be the most efficacious in relieving cerebral disturbance, as well as curing the intestinal trouble.

A close study of this combination shows that it is a tonic-laxative analgesic and antipyretic—and its administration in certain cases is sure to be followed with excellent results. For instance, in the sequelae of typho-malarial cachexia, when a gentle and safe laxative combined with an anti-periodic is required, I have found this preparation

THE MK AND T
MISSOURI, KANSAS & TEXAS RY.

FAST TRAIN

"The Katy Flyer"

BETWEEN

ST. LOUIS,
KANSAS CITY,
CHICAGO,

Has Through Sleepers

TO



GALVESTON, SAN ANTONIO AND AUSTIN, TEX.

Also Intermediate Points.

Excursion Sleepers leave St. Louis for Texas, New Mexico, Arizona and California every Tuesday, 8:16 p. m.

CHAILE,
Traffic Manager.

JAMES BARKER,
General Passenger and Ticket Agent.

ST. LOUIS, MO.

of the utmost value. The co-operative or synergetic properties of these ingredients will readily commend themselves to the profession.—*Chicago Medical Times.*

TALKS LIKE A PHILOSOPHER.—Our friend of the Cactina Pillets in little talks on Astronomy thus discourses like a Sultan among astronomers of the worlds of space:

Time was when astronomy was considered a black art. Those were the blessed days when this grain of sand and tear, we call the earth, was religiously proclaimed to be the centre of the universe. A belief so necessary to the souls of men that the bodies of disbelievers were burned.

Gradually scales fell from eyes, shackles from the limbs of slaves and superstition from human souls. The four corners of the earth, the solid firmament, have degenerated into mere figures of speech. Men have learned to weigh majestic worlds and mighty suns with the precision of an apothecary. We have learned something of time, distance and magnitude, something of cause and effect, something of analogy and comparison, something of the architecture of the sky. Man has cunningly manipulated light with lenses and sifted it thro' prisms. The telescope and the spectroscope are the long lost keys with which the language of light is interpreted and made eloquent. With them we read the poems of the sky; they enable us to analyze worlds, and the raw material of worlds across awful chasms; they fetch messages fraught with the stuff that dreams are made of, and tell wondrous tales of people wiser maybe than ourselves.

We are now concerned of worlds and systems of worlds, and suns and systems of suns. We speak of universes floating about in globes of ether, ether-globes as numerous as the mist drops in a rainbow.

The mere fact that the earth is inhabited furnishes no great argument therefore that other worlds are inhabited. And yet the distribution of life over the earth is deeply significant; and there are countless facts under our very nose, which, if read aright, supply arguments of force, not to be resisted, pointing to the habitation of other worlds.

'he Treatment of

EPILEPSY AND THE NEUROSES

CCESSFULLY ACCOMPLISHED
...BY THE USE OF...

HYDROCYANATE OF IRON (TILDEN'S)

A STANDARD NEUROTIC REMEDY,

——INDICATED IN——

ILEPSY	LOCOMOTOR ATAXIA	HYSTERIA	NEURASTHENIA
ANIA	NEURALGIA	CHOREA	MIGRAINE

DOCTORS, INVESTIGATE! Write us for literature and clinical reports on the treatment of EPILEPSY and NEUROSES. We have on file in our office hundreds of testimonials from men of prominence and ability in their chosen profession, who have employed HYDROCYANATE OF IRON (Tilden's) with unvarying success in the treatment of EPILEPSY. Copies of same cheerfully mailed upon application.

Prepared Exclusively for Physicians' Prescriptions.

SOLD ONLY IN OUNCE CARTONS, 1/2 AND 1-GRAIN TABLETS.

$1.00 PER OUNCE.

PREPARED ONLY BY

THE TILDEN COMPANY,

Manufacturing Pharmacists,

NEW LEBANON, N. Y. ST. LOUIS, MO.

The Western Clinical Recorder

(BI-MONTHLY).

A Pithy, Practical Periodical for Practicing Physicians

th will keep a man fully abreast of the times, if he can afford but one, and one that the practitioner who takes twenty cannot afford to do without.

The RECORDER will be found to be an original, clean, ethical, inexpensive periodical; a continuous post-graduate course in all departments of medicine and surgery.

THE USEFUL JOURNAL FOR THE BUSY MAN, $1.00 Per Year in Advance;

which subscription may be sent to the office of publication, Lakeside Press, Chicago, or to the Editorial Office, Ashland, Wisconsin.

The wonderful adaptation of life to environment on different portions of the earth's surface teaches us that on other worlds beings adapted to other surroundings and conditions may live, though unlike ourselves in most respects. Nor is that all. Geological exploration thro' the wilderness of untold millions of years discovers that at no time, far as our researches have gone, was our earth without its various multitudinous and epochal forms of life, and those of one epoch remarkably different from those of another especially remote period.

Again, there are places on our earth where no form of life can exist. In the volcano's heart of fire and the iceberg's frozen breast no life exists. Yet the volcano cools and dies, and its crater teems with myriads of living things; the iceberg melts and becomes the food and habitat of life.

All these by way of introducing Seng and Cactina. Do our enterprising friends expect to send a consignment to Mars?

THE MEDICAL DIRECTOR OF THE WORLD'S FAIR.—*Interstate Medical Journal* contains some pertinent remarks on this subject to which we cordially subscribe:

The office of the medical director of the World's Fair will be an important one. Not only will the best plans for prompt medical and surgical relief be required, but there should be the greatest care for the best sanitation during the building, grading of the grounds, and the perfection of the general arrangements.

We suggest, first, that the office be created with a full sense of the responsibility attached, There will probably be more people here during the hot season than have ever been assembled in mid-summer in this latitude. An epidemic or a large number of fatal sun-strokes or a great accident, would be disastrous beyond compute.

To avert such a possibility there should be the best methods for securing plenty of pure water, good drainage, cool-rest places, and stations for medical and surgical emergency cases. Not only should there be a director, but

/E SUPPLIED ALL THE CITY INSTITUTIONS WITH DRY GOODS LAST YEAR.

'WM. BARR DRY GOODS CO.

Keep the Largest Stock of Goods suitable for

HOSPITAL PURPOSES

TO BE FOUND IN ST. LOUIS,

And Special Terms will be made with all Institutions ordering from them.

BI DING MATERIALS OF ALL KINDS,
UNDERCLOTHING, IN SILK, WOOL AND COTTON,
LADIES' AND CHILDRENS' READY-MADE CLOTHING,
FU NNELS AND UPHOLSTERY,
TABLE AND BED ROOM LINENS,
SOAPS, NOTIONS AND PERFUMERIES,

ARE ALL SPECIALTIES AT THE

WM. BARR DRY GOODS CO'S

NEW BUILDING,

SI TH, OLIVE AND LOCUST, - - - ST. LOUIS.

S. Write and find out our special terms to Hospitals.

HALL-BROOKE, A PRIVATE HOSPITAL For Mental and Nervous Diseases

CASES OF ALCOHOLISM AND DRUG HABIT.

An inviting quiet **hospital** for the careful medical care of acute mental diseases, with a refined congenial **home** for the chronic mental invalid. The location is unsurpassed for healthfulness and charming environment. Cases of alcoholism and drug habit may commit themselves. For information and rates address

DR. D. W. McFARLAND, **GREEN'S FARMS, CONN.**
Hours, 12-1 and by appointment.

New York Office with **Dr. LAWRENCE,** **55 East 65th St.**
New York Telephone 591-79th St.

he should be provided with a large corps of competent assistants. For climate reasons, as well as for many others, the medical staff cannot be organized too carefully.

The medical director should be the most available and the most efficient man that it is possible to secure. He should have had experience in this work. He should be one who is willing to sacrifice something, if need be, for there will be a vast amount of work, and the office will be no sinecure. He cannot be entirely guided by the experience of the directors of other expositions, for the conditions here will be unusual.

Such an office should command a good salary. The service that is demanded cannot be given by a mediocre. It should be of the most intelligent, practical and scientific order. Most of all the office should not be filled as the result of petitions, personal influence or political favoritism. We want the best man for the place, and the profession of the city will do well to see that only the best man gets it.

* * * * * * *

Favoritism should have no place, and "wire-pulling" no value. The physician who is appointed will have to sacrifice his time, money and effort. He may have some return in the prominence given to the office, but it is not likely to be a full return. The salary attached, ample as it should be, will not equal the expenditure. The man who seeks the place for selfish purposes, should he get it, will be disappointed. * * * The physician who is chosen for it should be a man of executive ability, energy and experience.

It is not necessary that the selection of the man should be confined to St. Louis or to Missouri or even to the Louisiana Purchase States, though it might look better to take him from within this historic area.

SEVENTY-FOUR MILES AN HOUR. Coffee cups which failed to record the speed of the train. To a Washington group Col. Wells H. Blodgett, of St. Louis, told a story of railroad travel which caused his hearers to marvel. His theme was the improvement of transportation facilities in the

TO GUARD THE HEART

the treatment of Febrile, Nervous and Chronic Diseases, and as a Remedy in Functional Disorders of the Heart and Circulation.

Each Pillet represents one one-hundredth of a grain of Cactina, the active proximate principle of Cereus grandiflora (Mexicana).
DOSE—1 to 3 pillets.

USE

CACTINA is no longer an experiment. Physiological writers and the medical profession recognize in it the safest heart tonic in many conditions.

CACTINA PILLETS.

Sample mailed free to physicians.

Artificial digestive agents, such as pepsins and pre-digested foods, are temporary expedients. In treating chronic dyspeptics

SENG

increases the secretion of the digestive fluids, relieves congestion of the mucous coats of the entire alimentary canal and restores the assimilative processes. Dose—one teaspoonful before meals; the dose before breakfast preferably in hot water. Samples to physicians who will pay express charges.

SULTAN DRUG CO., Manufacturers of Cactina Pillets and Seng, St. Louis.

Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides

WHEN YOU USE

PEACOCK'S BROMIDES

YOU USE THE BEST.

Each fluid drachm, represents 15 grains of the combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium, and Lithium.

Put up in half-pound bottles only. Full size sample to physicians who will pay express charges.

CHIONIA

AN HEPATIC STIMULANT, NOT A CATHARTIC.

(From Chionanthus Virginica.)

Stimulates portal circulation, strengthens the lymphatics, and removes Chronic Constipation and Sluggish Conditions of the Liver by its general tonic action on that organ.

Put up in half-pound bottles only. Full size bottle to any physician who will pay express charges.

PEACOCK CHEMICAL COMPANY, St. Louis.

Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia | Peacock's Bromides | Chionia

United States. His argument was that these advantages are coming so rapidly and with so little mention that most people do not appreciate them.

"On a stretch of the Wabash recently," Col. Blodgett said, "several of us were at breakfast. The coffee cups stood so evenly that, although they were full, not a drop splashed over the sides. Conversation turned upon speed, and one who was at the table remarked that he had often desired to realize what a rapid rate meant," quotes the New York *Mail and Express*. "He said he had been on the New York Central when it was claimed that the train was going sixty miles an hour, but he had his doubt about it, because the jar did not indicate anything unusual.

"At the time of this conversation the car upon which we were taking a meal did not seem to be making any unusual time. We discussed the sense of speed as it would be experienced by the traveler. As a matter of curiosity, we asked the conductor to look at the registering apparatus at the end of the car. He came back and reported the train was going seventy-five miles an hour."

DR. SMITHWICK, of La Grange, N. C., in the Jan. 1901, number of the *Maryland Medical Journal*, says:

"When, in disease, bed sores occur we must use the best means for healing them and making the patient comfortable. In my experience I have tried a great many things, but have come to the conclusion, which is substantiated by clinical results, that I obtain the best results by thoroughly washing the parts with warm normal salt solution, bathing in peroxide of hydrogen, and dressing in pledgets of cotton or strips of gauze soaked in Ecthol. This dressing is repeated once, twice or thrice daily as the urgency of the case seems to demand."

ELIXIR MALTOPEPSINE (Tilden's) has proven itself very satisfactory in the treatment of dysentery, and here the addition of codeine will prove itself an excellent adjuvant. Occasionally some syrup of rhubarb will recommend itself, but all these additions must be left to

"RIVER CREST,"

(UNDER STATE LICENSE.)

ASTORIA, L. I., NEW YORK CITY.



FOR MENTAL AND NERVOUS DISEASES.

Separate detached building for **Alcoholic** and **Drug Habitues.** Splendid location. Overlooks East River and the City. Address **J. JOS. KINDRED, M. D., Physician-in-Charge.** City Office, 1125 Madison Avenue Cor. 84th Street, 2 o p. m. daily. Sanitarium telephone, 36 Astoria.

The Richard Gundry Home,

CATONSVILLE, BALTIMORE CO., MD.

A private Home for the treatment of Mental and Nervous Diseases, Opium and Alcoholic addictions. For Circulars, Rates, etc., Address,

DR. RICHARD F. GRUNDY, Catonsville, Md

References—Dr. Henry M. Hurd, Dr. Wm. Osler, Johns Hopkins Hospital, Baltimore, Md. Dr. Thomas A. Ashby, Dr. Francis T. Miles and Dr. Geo. Preston, Baltimore, Md. Dr. George H. Rohe, Sykesville, Md. Dr. Charles H. Hughes, St. Louis.

THE BLUE HILLS SANITARIUM MILTON, MASSACHUSETTS.

A PRIVATE HOSPITAL AND IDEAL RESORT.

All classes of patients admitted. Separate department for the victims of ALCOHOL, OPIUM, COCAINE AND OTHER DRUG HABITS.

All desire for liquors or the baneful drugs overcome within three days after entrance, and without hardship or suffering.

A well-equipped Gymnasium, with competent Instructors and Masseurs, for the administration of purely Hygienic treatment; also a Ten-plate Static Electrical Machine, with X-Ray, and all the various attachments.

J. FRANK PERRY, M. D., Supt., 2 Park Square, Boston, Mass.

DR. WM. B. FLETCHER'S SANATORIUM.

For treatment of Nervous and Mental Diseases. Special treatment of Diseases of Women by DR. MARY A. SPINK.

18 N. ALABAMA ST., - - - INDIANAPOLIS, IND.

THE ALPHA SANITARIUM,

LAKE FOREST, ILLS.

Established for the treatment of the Functional Derangements and Morbid Psychologies that occur during Adolescence.

For further particulars address

W. XAVIER SUDDUTH, M. D., 100 State St., CHICAGO.

Mention this Journal when writing to Advertisers.

the judgment and discretion of the physician. Suffice it to say that the prime necessity is to discover the causes of the numerous ailments for which relief is sought, and when this is discovered to be fundamentally faulty digestion, the remedy which has been indicated will suggest itself and produce good results.

ST. LOUIS, May 15th, 1901.

HENRY HEIL CHEMICAL CO., City.

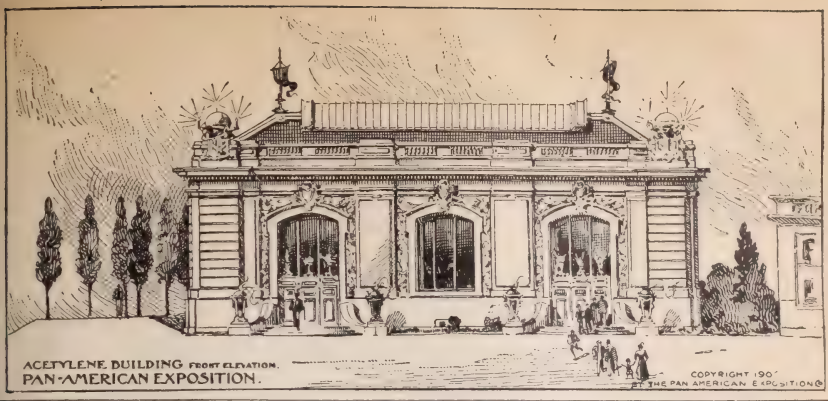
DEAR SIRS:—Please accept thanks for sample sent me of your splendid remedies, Borobenphene also Glycobenphene. I should have acknowledged receipt of them before, but wished to give them a fair trial before reporting. It is not my custom to recommend every sample that I receive, but in your Borobenphene and Glycobenphene I find an exception to my rule as I do not believe there is any skin disease, acute or chronic, that will resist Glycobenphene combined with Borobenphene. I find them especially adapted to the various forms of Eczema, but of course, the Doctor must know how to treat them, for there is no remedy known to-day that will cure all cases by merely local applications; every case is a little different. I have no trouble in curing any case with Glycobenphene also Borobenphene and in genito-urinary practice, also Gynaecology they are par excellence. I can cheerfully recommend them to my brother practitioners.

Again thanking you, I remain,

Yours respectfully, J. M. RADER, M.D.

THE INVENTOR OF MATCHES was a country doctor, Charles Marci Sauria. His memory was honored recently by the erection of a monument in the village of Saint Lothaire, in the Jura.

KUGLOIDS is the latest proprietary appeal to professional favor. We suppose they are designed for katching the Kuklux Klan or something like that. They are not advertised in THE ALIENIST AND NEUROLOGIST and our interest in them does not extend beyond the name.



Greenmont-on-the-Hudson.

For NERVOUS and MENTAL DISEASES.

RALPH LYMANS PARSONS, M.D. RALPH WAIT PARSONS, M.D.

City Office, 21 East 44th St,, Mondays and Fridays, 3:30 to 4:30,p.m.

SING SING, P. O., N, Y.
Long Distance Tel., Hart, 140A, Sing Sing, N.Y

CREST VIEW SANITARIUM,

GREENWICH, CONN.

A quiet refined home for the treatment of

Chronic and Nervous Diseases,

In the midst of beautiful scenery, 28 miles from New York.

H. M. HITCHCOCK, M. D.

THE COMPTON SCHOOL

FOR THE

Psycho-Physiological Training of Children

....OF....

Retarded Mentality.

For Particulars address the Principal, OPENS SEPT. 4, 1901.

MISS FANNY A. COMPTON,
4562 SCOTT AVE., ST. LOUIS, MO.

SANITARIUMS AND DOCTORS

CAN OBTAIN

SPECIAL RATES for CARD ADVERTISEMENTS

We have a few bound copies of the ALIENIST AND NEUROLOGIST on hand. Price, $6.50 Prepaid.

Mention this Journal when writing to advertisers.

THE COMPTON SCHOOL for the Psycho-Physiological Training ofChildren of Retarded Mentality, which opens in this city, as per advertisement, on Wednesday,September 4, of the present year, is a much felt want none too soon supplied.

Miss Compton, the principal, comes to her task well recommended and practically thoroughly prepared. We cordially commend her and her good work.

THE ESTABLISHMENT OF MARIANI, of Paris, France, contains alaboratory exclusively devoted to the production of Coca preparations. This chemist has devoted nearly half a century to the perfection of the famous tonic wine which rightly bears his name. While Vin Mariani is a proprietary preparation it is in no sense a secret remedy, but is prepared after the French cordex to present the force giving qualities of Coca, with the mild tonic of a wholesome wine. In this form it is generally admitted to represent not only the true properties of Coca, but to be the most available form for the administration of that substance. Vin Mariani is conscientiously prepared, and is introduced to the medical profession in an ethical way.



WILLIAM McKINLEY.

THE
ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, OCTOBER, 1901. No. 4.

THE DEVELOPMENT OF THE SEXUAL INSTINCT.*

By HAVELOCK ELLIS, M. D.,

LELANT CORNWALL, ENGLAND.

Honorary Fellow of the Chicago Academy of Medicine, Etc.

HISTORY VI. "When I was about eight years old" (states the lady who is the subject of the next observation) "I remember that, with several other children, we used to play in an old garden at being father and mother, unfastening our drawers and bringing about *membrorum conjunctionem*, as we imagined married people to do, but no sexual feelings were aroused,† nor did the boys have erections." When about ten years old she became

*Continued from the ALIENIST AND NEUROLOGIST, July, 1901.

†Games of this kind seem to be remarkably prevalent among children. One informant tells me that "playing at pa and ma" is much commoner among children than parents imagine. Another believed when a boy that most brothers and sisters had what they believed to be intercourse. Imperfect and mistaken as youthful ideas generally are, it is certain that parents are frequently deluded when they fancy that their young children can have no knowledge, intent or curiosity in sex matters. As in the case above, there is usually genuine innocence and a complete absence of viciousness. W. A. Hammond has seen (Impotence, page 107) in New York boys and girls, three or four years of age, attempt *conjunctionem membrorum* in the manner in which they had seen their elders perform it (destitute of the slightest idea that they were doing wrong), sometimes in the very presence of their parents, without other reprimand than a laughing rebuke. In New Mexico he has seen like attempts made in the streets with the applause and encouragement of men and women.

conscious of a pleasurable sensation associated with the smell of leather, which has ever since persisted. At that age she was sometimes left to wait in the attic of a wholesale business house full of leather-bound ledgers. She did not then notice the sensation particularly and was certainly not conscious of any connection with sexual emotion. Menstruation was established at thirteen and a half years. Distinct sexual feelings were first observed a few months later. "The first feelings of love which I ever felt were at the age of fourteen for a nice boy of my own age who often came to our house. He liked me but was not in love with me. It was very seldom that he would sit by me and hold my hand, as I wished him. This went on till I was about seventeen, when he went to the university. After his first term, he came back and was then attracted to me, but though I loved him very much I was too proud to show it. When he tried to kiss me, I resisted though I longed for it. Thinking I was greatly offended, he apologized, which only made me angry. All these years I was worshiping at his shrine and mixed him up with all my ideas of life." Whenever she was near him she experienced physical sensations, with moistening of the vulva. This continued till she was about twenty, but the object of these emotions never again attempted any advances.

At nineteen she became engaged to some one else. At the beginning she was physically averse to her lover, but when he first kissed her, she became greatly excited. The engagement, however, was soon broken off from absence of strong affection on either side and chiefly, it would seem, from the cooling of the lover's ardor. She thinks he would have been more strongly attached to her if she had been colder to him or pretended to be, instead of responding with simplicity and frankness.

During the next few years little occurred; she was working hard and her amusements were mostly such as would be regarded as rather childish. She was extremely fond of dancing and always pleased when anyone paid her attention. She was frequently conscious of sexual feelings, sometimes tormented by them, and she regarded this as

something to be ashamed of. The constant longing for love was affected little or not at all by hard work. At about this time: "I was very fond of abandoning myself to day-dreams. I was very glad if I could get everyone out of the house and lie on an easy chair or the bed. I liked especially to read poetry; all the more if I did not quite understand it. This would lead me on all sorts of dreams of love which, however, never went beyond the preliminaries of actual love—as that was all I then knew of love." The only climax to her dream of love was founded on a piece of information volunteered by a married woman when she was about twelve. This lady—evidently agreeing with Rousseau (who in "*Emile*" commended the mother's reply to the child query whence babies come "*Les femmes les pissent, mon enfant, avec des grands douleurs*) that the unknown should first be explained to the young in terms of the known—told her that the husband *micturated inter uxor.* She therefore used to imagine a lover who would bear her away into a forest *et micturate in vaginam pede arbovis.** All the physical sensations of sexual desire were called out by these day dreams; abundant secretion, but never the orgasm. She accidentally discovered that a *plenum vesicae* tended to enhance sexual feelings and occasionally resorted to this physical measure of heightening excitement. Her reveries never led to masturbation or to allied manifestations, which have never taken place. Such a method of relief has, indeed, never offered any temptation to her; the only gratification she desired being that of love, and the charms of the day-dreams lay in the images of love they evoked. At the same time she remarks that while no orgasm (of which, indeed, she was then ignorant) ever occurred, the sexual excitement produced by the day-dreams was sufficiently great to cause a feeling of relief afterwards. These day-dreams were the only way in which the sexual erethism was discharged. She cannot recall having erotic dreams or any sexual manifestations during

*This suggests the urinary fetichism sometimes recorded, which seems more common in men than in women. In this case the idea tended to die out as knowledge of the actual facts of sexual life increased.

sleep. Spontaneous sexual excitement was present a few days before menstruation, fairly marked during and immediately after a period. It also tended to recur in the middle of the intermenstrual period. The pleasurable sensations connected with the smell of leather became more marked as she approached adult age. It was especially pronounced about the age of twenty-four, and the sexual emotion it produced (with moisture of the vulva) was then clearly conscious. No other odor produced this effect in such a marked degree. It was often associated with leather bags and not with boots, though on rubbing the leather of shoes this odor was given out. She cannot account for its origin and does not connect any association. It never affected her conduct or led to fetichistic habits.* Some other odors affected her in the same way, though not to the same degree as leather. This is more especially the case with some flowers, especially with heavy odors, like gardenias. Many flowers, on the other hand, like primroses, seem rather opposed to sex effect, too fresh, though stimulating to the mind.† Some artificial scents tend to produce sexual effects also. Personal odors have no influence of this kind. She believes that most beautiful things, however unconnected with sex, have a tendency to produce distinctively sexual feelings in a faint degree, although sometimes more marked with secretion. She has never experienced homosexual feeling, and, on first consideration, was inclined to believe that the sight of a beautiful woman had no sexual effect on her, though she could quite understand such an effect. Subsequently, on recalling as well as observing her experience more carefully, she found that a lovely woman's face and figure (especially on one occasion the very graceful figure of a beautiful fairy in a ballet) produced distinct

*It is difficult to say whether this experience throws any light on the common anomaly of boot fetichism. Another lady has suggested that the smell of leather resembles that of the female genitalia. The effect in the case above appears to lie only in the odor itself. It is possible, however, on the other hand, that the first occurrence of the sensation was coincident with an accidental excitation of the sexual parts which failed to penetrate consciousness leaving the smell sensation as a symbol of the subconscious organic emotion. Breuer and Freud have shown how such a process takes place constantly in hysteria.

†The lady who is the subject of History V finds similar effects from odorous white flowers, and has written to me at length on this point.

sexual sensations (with mucus emission). Music, however, had strongly emotional effects upon her, and she cannot recall that she ever felt any equally powerful influence of this kind in the absence of music. Looking back on the development of her feelings she finds that, though in some respects they may have been slow, they were simple, natural, spontaneous, and correspond to the dawning and progress which go on in the development of every girl.* While it is going on in actual fact, the girl does not know or bother herself about trying to understand it. Afterwards it seems quite clear and simple. Full occupation of the brain (and hands, too) while it does not do away with desire, is a great help and safeguard to a growing girl when combined with proper information about herself and her relation to man the animal, so that she may realize where she is and how to choose the right man.

HISTORY VII. The subject belongs to a large family having some neurotic members and spent her early life on a large farm. She is vigorous and energetic, has intellectual tastes and is accustomed to think for herself from unconventional standpoints on many subjects. Her parents were very religious, but not, she thinks, of sensual temperament. Her own early life was free from associations of a sexual character and she can recall little that now seems to be significant in this respect. She remembers that in childhood and for some time later she believed that children were born through the navel. Her activities went chiefly into humanitarian and utopian directions and she cherished

*Colin Scott finds it common among women for those noted for female beauty to arouse sexual emotion. He believes that female beauty has come to be regarded as typical and ideal beauty and therefore tends to produce an emotional effect on both sexes alike. It is certainly rare to find any æsthetic admiration of men among women except in the case of women who have had some training in art. J. G. Kiernan, however, contends that American women of general culture but without special art training are often deeply affected by the manly element of manly beauty long before any conscious sex element occurs. In women of lower culture, this feeling evinces itself in admiration of the physical basis of masculine strength, of athletes, pugilists, pedestrians, etc. In both, the sexual element of the admiration is at the outset entirely subconscious. In certain women even with art culture, admiration for the manly element of manly beauty precedes admiration of female beauty, although it may later coexist with it or even be commingled with it. The ideal beauty is, then, one of manly strength with womanly gentleness. Feminine weakness conjoined with masculine strength seems equally repugnant to the last type as homosexuality, which to these women has an innate, irresistibly repellent aspect.

ideas of a large, healthy, free life, untrammeled by civilization. She regards herself as very passionate, but her sexual emotions appear to have developed very slowly and have been somewhat intellectualistic. After reaching adult life she has formed several successive relationships with men to whom she has been attracted by affinity in temperament, in intellectual views and in tastes. These relationships have usually been followed by some degree of disillusion and so have been dissolved. She does not believe in legal marriage, though under fitting circumstances she would much like to have a child. She never masturbated until the age of twenty-seven. At that time a married friend told her that such a thing could be done. She found it gave her decided pleasure, indeed, more than *coitus* had ever given her except with one man. She has never practiced it to excess; only at rare intervals, and is of the opinion that it is decidedly beneficial when thus moderately indulged in. She has found, for instance, that after the mental excitement produced by delivering a lecture, sleep would be impossible if masturbation were not resorted to as a sedative to relieve the tension. Spontaneous sexual excitement is strongest just before the monthly period. Definite sexual dreams and sexual excitement during sleep have not occurred except possibly on one or two occasions. She has from girlhood experienced erotic day-dreams, imagining love stories of which she herself was the heroine; the climax of these stories has developed with her own developing knowledge of sexual matters. She is not inverted and has never been in love with a woman. She finds, however, that a beautiful woman is distinctly a sexual excitation, calling out definite physical manifestations of sexual emotion. She explains this by saying that she thinks she instinctively puts herself in the place of a man and feels as it seems to her a man would feel. She finds that music excites the sexual emotions, as well as strong scents, whether of flowers, the personal odor of the beloved person or artificial perfumes.

HISTORY VIII. The subject is of German extraction on both sides. The father is of marked intellectual tastes,

as also is she herself. There is no unhealthy strain in the family so far as she is aware, though they all have very strong passions. She is well developed, healthy, vigorous and athletic; any trouble to which she is subject being mainly due to overwork. Looking back on her childhood she can now see various sexual manifestations occurring at a period when she was quite ignorant of sex matters. "The very first," she writes, "was at the age of six. I remember once sitting astride a bannister while my parents were waiting for me outside. I distinctly remember a pleasurable sensation—probably in part due to a physical feeling—in the thought of staying there when I knew I ought to have run out to them. From then till the age of ten I simply revelled in the idea of being tortured. I went gladly to bed every night to imagine myself a slave, chained, beaten, made to carry loads and do ignominious work. One of my imaginings, I remember, was that I was chained to a mouldering skeleton." As she grew older these fancies were discontinued. At the same time there was a trace of sadistic tendency: "I used to fight and tease a young child; driven to it by an irresistible impulse, experiencing a certain pleasurable feeling in so doing. But this, I am glad to say was rare, as I hate all cruelty." One of her favorite imaginings as a child was that she was a boy, and especially that she was a knight rescuing damsels in distress. She was not fond of girl's occupations and has always had a sort of chivalrous feeling toward women. "When I first heard of the sexual act," she writes, "it appeared to me so absurd that I took little notice. About the age of ten I discussed it a good deal with other girls and we used to play childishly indecent games—out of pure mischief and not from any definite physical feeling." About a year after, menstruation was established. She accidentally discovered the act of masturbation by leaning over a table. "I discovered it naturally, no one taught me, and the very naturalness of the impulse that led me to it often made me in later years question the harmfulness." Both her sisters masturbated from a very early age but not, to her knowledge, her brother. The practice of masturba-

tion was continued. "For many years, imbued with the old ideas of morality, I struggled against it in vain. The sight of animals copulating, the perusal of various books (Shakespeare, Rabelais, Gautier's '*Mlle. de Maupin*,' etc.,), the sight of the nude in some Bacchanalian pictures (such as Rubens) all aroused passion. Co-existent with this—perhaps (though I doubt it) due to it—arose a disgust for normal intercourse. I fell in love and enjoyed kisses, etc., but the mere thought of anything beyond disgusted me. Had my lover suggested anything else I would have lost all love for him. But all this time I went on masturbating, though as seldom as possible and without thought of my lover. Love was to me a thing ideal and quite apart from lust, and I still think that it is false to try to connect the two. I fear that even now if I fell in love, sexual intercourse would break the charm. At the age of eighteen I came across Tolstoi's "*Kreutzer Sonata*" and was overjoyed to find all I had thought written down there. Gradually, through seeing a friend happily married, I have grown to a more normal view of things. I am very critical of men and have never met one liberal-minded and just, enough to please me. Perhaps if I did I might take a perfectly healthy view of things." In course of time various devices had been adopted to heighten sexual excitement when indulging in masturbation. Thus, for instance, she found that the effects of sexual excitement are increased by keeping the bladder full.* But the method—somewhat remarkable and difficult of interpretation—which she had devised for heightening and prolonging the preliminary excitement consisted in wearing tight stays (as a rule she wears loose stays) and in painting her face.‡ She cannot

*This seems to be a common experience with women. It will be noticed that the subject of History V refers to the accidental discovery of such a relationship. The subject of History VI also discovered it after marriage.

‡J. G. Kiernan remarks, however, that healthy women (sexually speaking) who have never worn corsets, find that on first putting them on, sexual feelings are so intensified that their abandonment often becomes necessary. In a male case (Medical Record, Vol. XIX) of perversion passing from heterosexuality to homosexuality the homosexual (masochistic) feelings were intensified by tight-lacing. In this case a subjectivistic element existed early. Tight-lacing has been recognized by many gynæcologists as a factor of sexual excitement and a method of masturbation.

herself explain this. It seems to be an admiration of the subject's own frame, associated with homosexual feelings.§ Self-excitement is completed by friction, or sometimes by the introduction of a piece of wood into the vagina. She finds that the more frequently she masturbates, the more easily she is excited. Spontaneous sexual feeling is strongest before and after the menstrual period; not so much so during the periods.

There are various faint traces of homosexuality, it may be gathered, in the history of this subject's sexual development. Recently—she is still young—these have come to a climax in the formation of a homosexual relationship with a girl friend. This relationship has given her great pleasure and satisfaction. She does not, however, regard herself as being a really inverted person.

There have been vivid sexual dreams from about seventeen (apparently about the period of the relationship with the lover). These dreams have not, however, had special reference to persons of either sex.

Apart from the influence of books and pictures already mentioned, she remarks that she is sexually affected by the personal odor of a beloved person but is not consciously affected by any other odors.

I do not wish to found any considerations or conclusions on these histories. They are too few—as, indeed, are all the histories I have obtained at present—to enable us to reach any definite conclusions concerning the nature and development of the normal sexual instinct. But I think I may claim that even these few histories suffice to show that the path of investigation I am trying to open out is not unprofitable, if we wish to obtain true insight into sexual perversions and to have a sound basis for sexual hygiene.

§It would thus be a development of the Narcissus form of auto-erotism referred to in Vol. II of the author's Studies in the Psychology of Sex.

THE PHYSIOLOGICAL MENTAL WEAKNESS OF WOMAN.

By J. P. MÖBIUS.*

THE physiological mental weakness of woman may be spoken of in two ways.

I.

It is not easy to define mental weakness. We may say it is that which lies between idiocy and the normal condition. However the difficulty consists in separating mental weakness from the normal condition. For the latter we do not possess a definite term, for soundness is not the appropriate concept, fully sensible refers to the senses, not to the intellect, sagacious signifies a more than normal intellectual development, upright applies to the moral state. In ordinary parlance we have the antithesis: clever and stupid; one is clever who can differentiate, the stupid person lacks critical faculty. In fact between stupidity and the mild forms of mental weakness there should be no essential difference. We do not say stupidity is normal, mental weakness pathological, yet this antithesis is popular in an ill-sense and depends fundamentally on the improper intermixture of judgments of value. Scientifically popular stupidity may be just as much a pathological deviation as abnormal shortness of stature or weakness of sight, etc. On the other hand there is actually a physiological mental weakness, as the child is mentally weak in comparison to the adult, and as senility cannot be called a disease (in spite of the *senectus ipsa morbus*), but with senility a blunting of the mental functions occurs sooner or later.

*English by Dr. W. Alfred McCorn.

The term stupid is also used for pathological change: he has been stupid from drink, or from an acute disease. However, if we class stupidity with mental weakness, the difficulty is not overcome, for the boundary of stupidity is not determined. In a certain respect everyone is stupid, one in music, another in mathematics, this one in languages, the other in business, etc. Partial and mental weakness must consequently be differentiated. It may be said then with a certain justice the special talents are not to be included, a person only needs to have average faculties. That is just it, what does average signify, how is the norm to be determined? Here, as everywhere else, in the determination of finer pathological forms, which is not to be settled by the crude statements of the ordinary clinic, we appreciate the want of a *mental canon*. For the forms of the body we have the standard and can readily determine whether this or that number of centimeters is normal, but for the mental faculties the rule is wanting, here option governs. Consider the variations of opinion in doubtful cases. It would be absurd to claim the present prevailing uncertainty is necessary, for no boundaries can be drawn where in reality none exist. The affair is not so bad if one will take the trouble, it will be possible to institute *approximately* a canon, and thus to limit the uncertainty, if not to remove it. In general and also as to mental weakness the correct way would be to no longer speak of persons merely, but of definite classes of persons, to ask what can be expected of this age, this generation, this people. The normal condition of the child is pathological in the adult, that of woman in man, that of the negro in the European. Comparison of various groups is then the salient point, for only thus can it be learned what is to be expected of a member of a certain group, only thus will one avoid calling a person stupid or mentally weak, because he does not do what some other person is capable of. Mental weakness on the whole is a relation and can only be of significance by comparison with some one of the same kind. If the member of one group is not to be measured by that of another, the groups should not be contrasted with each other.

An Eskimo, who cannot count a hundred is not mentally weak as an Eskimo, but because of this fact he is mentally weak in comparison to the German or Frenchman. How is it then with the sexes? To begin with it is certain that the male and female mental faculties are very different, but is there an equalization because women are capable of more in one way, men in another, or are women on the whole weak-minded in comparison to man? The latter opinion is proverbial, for long hair, short wit; but modern wisdom will not accept it, the feminine mind is at least equal to the masculine. A sea of ink has been wasted in this matter and still there is no harmony and clearness. The best compilation I know of is the first part of the work by Ferrero and Lombrose,* which treats of the normal woman. Naturally I cannot assent to all the statements of the authors nor adopt all their construction, but on the whole the evidence of a mental inferiority of woman is very well presented. The presentation of the Italians occupies one hundred and ninety-two pages and is still aphoristic. If one will go into it thoroughly a large book will be the result. It is therefore plain that here I can only refer to the most important facts. It will always be well to take the matter up directly as well as indirectly, *i. e.* not to refer merely to psychological, but also to anatomical data.

Physically, irrespective of the sexual characteristics, woman is an intermediate between child and man and mentally also in many respects at least. There are certainly differences. In the child the head is relatively larger than in the man, in woman the head is not only absolutely but also relatively smaller. A small head of course contains a small brain, but here the evasion may be used, as well as against Bischoff's brain weights, a small brain may be worth just as much as a large one, for it may equally as well contain the parts essential to mental action. Therefore the comparative examination of the individual parts of the brain is more important, at least more conclusive. Rüdinger's deductions are here to be especially taken account of, which seems to me not to be as well known as they

*Abnormal Woman by C. Lombrose and G. Ferrero.

deserve. Rüdinger† has demonstrated in children at term that "the whole group of convolutions surrounding the Sylvian fissure is simpler and provided with fewer curvitures in girls than in boys," that "the Isle of Reil in boys is on the average somewhat larger in all its dimensions, more convex and deeply fissued than in girls." He has shown in adults (ibid. p. 32, Plate IV,) that "the female *gyrus frontalis tertius* is simpler and smaller than the male, especially that portion immediately bordering on the *gyrus centralis*." Inspection of the plates shows that the differences are very marked. Rüdinger has further shown‡ that "in female brains the whole median convolutional tract of the parietal lobe and the internal superior *gyrus transivitis* are markedly backward in their developments." In men of low intelligence (*e. g.* in the negro) he found conditions of the parietal lobe similar to the female, while in man of high mentality the larger development of the parietal lobe presents an entirely different picture. Rüdinger found the simplest conditions in a Bavarian woman, which he calls the "animal-like type."

It is therefore demonstrated that *parts of the brain extremely important for mentality, the frontal and parietal convolutions, are less developed in woman than in man and that this difference exists at birth.*

Man and woman have the same frontal convolutions, only of different sizes, both have the same mental attributes, more or less of this or that one constitutes the difference, no attribute is exclusive to one sex. The senses seem equally acute in both sexes. Lombroso believes to have found that the cutaneous pain sense is less in woman. If it is admitted that these observations have been generally confirmed, it would not be a matter of a blunted sensibility, but of lowered mental reaction to intense irritation. Also the fact, that for fine discriminations, *e. g.* tea tasting, wool sorting, men are more qualified, shows that they can better estimate slight differences in

†Ein Beitrag zur Anatomie des Sprachcentrums. Stuttgart, 1882. p. 12, Plate I.

‡Ein Beitrag zur Anatomie der Affenspalte und der Interparietalfurche beim Menschen. Bonn 1882, p. 6.

sensation. On the other hand the woman's enjoyment of colors is not to be regarded as a better color sense, but is explicable by mental conditions. It is different with respect to the motor function, for woman is far inferior to man in strength and dexterity. Owing to her weakness she is especially assigned to occupations which require a certain dexterity and thus arises the belief in the dexterity of woman's fingers. Still as soon as a man takes up woman's work, tailoring, weaving, cooking, etc., he does it better than the woman. Fundamentally dexterity is a function of the brain cortex, like the judgment of sensory impressions and we are again led to seek the differences in the sexes in the true mental faculties. One of the most essential differences is that instinct in woman plays a greater role than in man. One can form an idea of a series, at one end of which are creatures who act wholly from instinct, at the other those in whom every action depends on reflection. In general it is peculiar of mental development that instinct has never less force, reflection ever more, that the generic nature becomes more and more individual. We then speak of instinct, when an appropriate action is performed without the one performing it knowing why; as soon as certain circumstances recur an apparatus works in us and we perform an action as though a foreign reason impelled us to it. But we speak of instinctive knowledge when we arrive at judgments without knowing how. Fundamentally no action and knowledge is without instinct, for a part of the processes is always sublimnal, but there are different grades. The more the individual consciousness participates in cognition and action, the higher is the individual's development, the more independent he is. An intermediate state between the purely instinctive and clearly conscious we call feeling. To act from feeling, to hold something to be true from feeling is to do it half instinctively. Instinct has great privileges, it is positive and unconcerned; feeling participates in half of the privileges. *Instinct makes the woman animal-like, dependent, secure and cheerful.* On it rests her peculiar power, it renders her admirable and attractive. Very many feminine attributes are dependent on

this animal-like condition. Chiefly the absence of real judgment. What is regarded true and good is true and good for woman. They are strictly conservative and loath innovations, except of course the instances in which the innovation confers personal advantages, or the loved one is interested in it. Like animals they always do the same thing, hence the human race would have remained in its primitive state if there were only women. All progress is due to man. Therefore the woman is like a dead weight on him, she prevents much restlessness and meddlesome inquisitiveness, but she also restrains him from noble actions, for she is unable to distinguish good from evil and merely subjects everything to custom and "the speech of people." The deficiency in criticism is expressed in the suggestibility. Instinct does not almost alone control as in the animal, but it is combined with individual thought, yet this is not strong enough to stand alone, must be supported by others' ideas; inclination, love or vanity may appear trustworthy. This is shown in the apparent contradictions that as guardians of old customs, run after every fad, are conservative and still take up with any absurdity as soon as it is shrewdly suggested. With the detachment from the original instincts, with the egogenesis and the growth of individual thought egoism increases or more correctly, the egoistic individual according to his nature, who, so long as he listens to his impulses, acts unconsciously to the advantage of others, will act, when he begins to think, counter to the social impulses. A high mental development affords the insight that by promotion of the general weal the personal weal is promoted. Most women remain in the intermediate state; their morals are entirely those of feeling or unconscious rectitude, the moral concept is incomprehensible for them and reflection only makes them worse. To this bias is added the narrowness of the intellectual scope due to their natural position. They live in the children and the husband; what is outside of the family does not interest them. Justice, regardless of the person is an empty phrase for them. It is evidently incorrect to call women immoral, but they are morally biased or defective. So far as love

goes, so far as evident trouble awakens their sympathy they are often capable of an actual sacrifice and quite often put the colder men to shame. But they are intrinsically unjust, they secretly laugh at the law and violate it as fear or training permit. Besides there is the intensity of the emotions, the inability for self-control. Jealousy and injured or ungratified vanity give rise to storms which no moral reflection will quell. If woman was not physically and mentally weak, if she was not as a rule rendered harmless by circumstances, she would be extremely dangerous. In times of political uncertainty we have been horrified by the injustice and cruelty of women, even by those who have come into power. In ordinary life these two attributes are manifested only as a rule in the activity of the tongue and in writing: affronts, slanders, anonymous letters. The tongue is woman's sword, for her physical weakness prevents her from using her fist, her mental weakness lets her waive demand for proof, then only the abundance of words remains. Quarrelsomeness and loquacity are always to be correctly included among feminine traits of character. Talk affords woman infinite pleasure, is the true femenine sport. That may perhaps be understood when the gymnastics of animals are taken into account. The cat chases after the ball and so practices for catching mice: woman exercises her tongue during her whole life to be prepared for wordy contest.

After these general characteristics the intellectual faculties would have to be taken account of. Reception and preservation of ideas will have to be separated, then intellect and memory on one side, voluntary association of ideas, formation of new judgments on the other. Intellect and memory, in so far as special talents are not concerned, are not bad in many women. They grasp ideas very well, if they will, and learn equally as well as men. Besides, if they are diligent and patient, they become model pupils. It is the universal opinion that, when women decide to take up higher branches, they are excellent scholars, and the more unreasonable the teacher is the better satisfied he generally is with the zealous study of his female pupils,

which is usually a matter of committing to memory. If nevertheless the great mass of the female sex learn extremely little and very soon forget it, it is not from lack of ability, but volition. As the average woman has exclusively personal interests, if learning does not offer a personal advantage in better prospects, it is repugnant to her. Interest in the affair is only exceptional. The relatively favorable judgment of the admissibility has its counterpart in the proof of woman's mental sterility. The extreme is, when a woman proves to be a good scholar, that she follows the method learned of the teachers. Whereas real 'creation,' invention, planning new methods is denied woman. She cannot become master, so to speak, for master is he who devises something. It is a favorite trick of men, who have instilled into woman their longing for emancipation and to claim to their blind followers women have only been in want of practice, they have been made slaves, like the African blacks, by the stronger men and in this slavery their mind is warped. To these assertions are usually joined Darwinistic theories, the acquired brain atrophy is transmitted, and inversely it is to be expected that if women now exercise their brains, their offspring will have a larger brain, theories, which at most might be feasible, if it was a matter of parthenogenesis. Bolder than the 'feminists,' truth cannot be slapped in the face. It is the simplest to refer to the domain, which has always been open to woman and in which she has moved at will. Music *e. g.* has never been a masculine affair, on the contrary more girls than boys have been instructed in music. What has been the result? Women sing and play, in part very well, but that is all. Where is the female composer who has attained any note? In painting there does not exist an antithesis between the original and reproducing artist, all paint and, whether one is original, is not always easy to say. Still it is seen without difficulty that the great majority of feminine artists are wholly devoid of creative fancy and attain only a medium technique: flowers, still life, portraits. Very rarely is actual talent found and then other traits generally verify the mental hermaphroditism. The

absence of the ability to combine, *i. e.* in art the want of imagination, renders feminine art as a whole worthless. It is much the same in other fields. I refer to obstetrics, whose advancement women have hindered rather than enhanced.* Female novelists, who in part write very gracefully and the extremely rare poetess follow beaten paths, trade in the coin men have minted. Even cooking and dress-making have only been promoted by men, who invent the new receipts and the new fashions. All we see about us, every household utensil, the implements of daily use, all have been invented by men.

That the sciences strictly have not received nor can expect any advancement from women is self-evident. The few literary women whose names appear in the history of the past two centuries, were good scholars, but nothing more. This is also true of the majority of the men of letters, but the others are the pinnacle, the latter form the lower strata on which the truly great of science are elevated. Also in ordinary life the incapacity of the female mind for combination, the want of independent thought is encountered daily and often forms a striking contrast with the readiness in appropriation. Besides the lack in essentiality demonstrates the desires for reasons and aversions. On the other hand the realism peculiar to women, who consider only loss and gain, recklessly pursues her purpose, is not inhibited by actual conditions, is of practical advantage and makes the women capable of occasionally vanquishing the more unweildy man considering matters from different sides and more impersonally. This feminine cunning is not a sign of high mental endowment; woman in this respect is as inferior to man as a shrewd merchant is to an artist or a scholar. Besides feminine cunning, if it accidentally encounters masculine cunning and is not inhibited by the sexual impulse, soon strikes its flag. The cunning is supported by hypocrisy. Woman is forced to this by her sexual role; she is instinctively adept and its per-

*See M. Runge's Festrede (männliche und weibliche Frauenheilkunde, Göttingen 1899) which has come to me after writing this paper. Also see: H. Schelenz Frauen im Reider Aeskulaps. Leipzig, 1900.

fection constitutes an essential part of the feminine nature. The task is to appear attractive, therefore the real desire must be suppressed and all must be shrewdly concealed which others might consider detrimental. Be it truth, between us it is the theatre, be it untruth between us it is life. That must be so and nothing is more absurd than to wish to forbid woman lying. Hypocrisy, *i. e.* falsehood is the natural and indispensable weapon of woman, which she cannot forego. The weapon should only be used for defense, however it is conceivable that it will not be, that a method, which forms an important part of life's conduct, is also employed unnecessarily. In itself feminine falsehood is only justified in sexual relations, but equity demands that it be judged more leniently than masculine falsehood.

Like hypocrisy and the other attributes already considered the whole nature of woman is the most readily comprehended teleologically. How must this nature be constituted to best fulfill the task allotted to it? The human female must not only bear children, but care for them, because differently from the young of animals they are in need of assistance for so many years. This helplessness of children renders a greater differentiation of the sexes necessary than in animals. Procurement of food, defense, the man alone has to look after external conditions, for the woman must first of all be the mother. Mentally all that lightens her maternal duties is to be given the woman, all that renders it hard to be removed. Nature demands maternal love and fidelity from woman. Therefore little girls play with dolls and gladly accept any assistance. Woman therefore has a child-like, cheerful, patient and unambitious spirit. The mother needs courage at most for the defense of the children, in other respects it would only be an annoyance and is therefore wanting. So it is with other masculine attributes; great strength and impulse, imagination and desire for knowledge would only make the woman restless and hinder her maternal duties; hence Nature gave them to her in small doses. Just as an intelligent man would not seek a literary woman to care for his children, eternal wisdom has not placed beside man a man with a

uterus, but the woman to whom all is given requisite for a noble calling, but to whom is also denied masculine mental power.

Consequently feminine mental weakness not only exists, but is necessary, it is not only a physiological factum, but also a physiological postulate. If we wish a woman to fulfill all her maternal duties she cannot have a masculine brain. Supposing the feminine faculties were developed equally with the masculine, the maternal organs would wither and we would have an ugly and useless mongrel. Someone has said nothing should be required of woman but to be "healthy and stupid." It is a crude expression but there is truth in the paradox. Excessive brain action not only renders the woman perverse, but sick as well. We see that daily. If woman will be what Nature has destined her, she does not need to cope with man. Modern seamstresses are poor breeders and poor mothers. Proportionately as 'civilization' advances, fertility declines, the better the schools, the worse the confinements, less becomes the secretion of milk, in brief, the more useless woman becomes. Lombroso, who refers to the animal kingdom, emphasizes that in the whole animal kingdom intelligence is in inverse ratio to fertility, that female ants and bees acquire higher intelligence at the expense of the species, while the queen bee, alone capable of procreation, is a very stupid creature. Nevertheless he adds: "A great participation in social life will certainly elevate gradually the woman's intelligence and in fact the happy consequences are to be seen in many highly developed races." Either 'happy' is bitter irony or a monstrous inconsistancy. Only the devil or a fool who believes in mental parity and similar absurdities, could really rejoice that the race is to be destroyed and the beginning of the end indicated.

Physicians have often been agitated by the demands of women to be admitted to the practice of medicine. Perhaps this affair is not so important. On the one hand it cannot be denied that the feminine mental faculties suffice for the acquisition of medicine and that occasionally female physicians, if properly managed and controlled, may be use-

ful (*e. g.* in a Mohammedan population), on the other hand only a very few girls will take up the study, ever fewer as more the affair loses 'actually,' and these few will be those who are not really fitted for their maternal duty. Then, medicine, like the women, will not derive much benefit from their efforts; it will not amount to much.

It seems to me more important that *physicians obtain a clear idea of the female brain or mental state, that they comprehend the meaning and value of feminine mental weakness* and that they do all in their power to combat the unnatural efforts of the "feminists" in the interest of the human race. It is here a matter of health of the people, which is endangered by the perversity of 'modern woman.' Nature is a strict mistress and threatens rigorous punishment for the violation of her commands. She has willed that woman be the mother and has directed all her forces to that purpose. If woman is denied the benefit of marriage, if she will live her life as an individual, she becomes a chronic invalid. Unfortunately man and the offspring are also punished. It is our duty as physicians to advise and warn. The future will hold us accountable. Shall we get wrought up about the ill treatment of the female liver by tight lacing, but calmly overlook ill treatment of the female brain?

Really if all was done that can be done, the evil will still exist, probably increase. For it seems to be a function of civilization. As the urban population with its special cerebral activity gradually becomes sterile and would become extinct but for the influx from the country, civilization seems to sap the sources of life and a people will finally become so civilized that it can live no longer, and may only be revived through barbarian blood. Evidently the primary phenomenon is the opposition between brain activity and propagation. Both functions are closely united, but more one gains the ascendency the more the other suffers. Brainy men are nervous and their progeny are very nervous. An essential sign of this form of degeneration is the effacement of the sexual characteristics: feminine men and masculine women. The more nervous the population becomes, the more frequent are girls with talents and mascu-

line mental attributes. Crossed heredity must be referred to it; the daughters take after the father and the more brainy men are procreated, the more often they convey their kind to their daughters. The affair is not benefited by any explanations, then explicable or not, necessary or not, masculinity of woman is ever a misfortune.

The law should have regard for the physiological mental weakness of woman. Our laws on the whole are made for men only; minors are cared for, but woman is considered the same as the man by the penal code (to speak of this alone) and the female sex is never regarded as an extenuating factor. Unjustly. To the statements already made is to be added, that woman during a considerable portion of her life is to be regarded as abnormal. I need not speak to physicians of the bearing menstruation and pregnancy have on mentality, to show that both states, without actual disease, disturb the mental equilibrium, impair the freedom of the will within the meaning of the law.* Consider the mental attributes of woman previously described, especially the inability to withstand emotional storms, and the defective sense of right, so it must be perceived that it is a great injustice to measure both sexes by the same standard. The slight criminality of woman readily explicable by the conditions of her life alone prevents the harshness of our law being felt. But the more the woman forsakes the protection of the home, the more readily will she come into conflict with the law and then she will often be punished more severely than she deserves. To cite only a single example, is it right to judge the two sexes the same for simple insult? Is not the same true of many petty thefts, which fundamentally are to be regarded as trifling? One should be considered especially. Many females in their statements of the past are wholly unable to separate what they have actually experienced from what they believe to have experienced. Such false memories also occur in men, but are much more frequent in woman and occasion false statements in which there is lack of any foundation. For this reason, in part, the evidence of women

*Krafft-Ebing has repeatedly advanced forcible arguments.

in olden times was given little or no credence. The ancients exaggerated in one direction, we exaggerate in another, *overrate woman as a witness, treat her too harshly as accused.*

II.

If we perceive that we are necessitated to call the normal woman weak-minded in comparison to man, nothing to her detriment is thus implied. Her accomplishments differ from those of man and the differentiation of the sexes seems to be a wise provision of Nature, in which man and woman have not fared badly. But if the life of woman is considered more closely it might be thought Nature has dealt harshly with her. Woman not only has less mental capacity than man, but she loses what she has much earlier. This is the second sense in which the physiological mental weakness of woman may be spoken of; the prematurely aged woman is here to be compared with the robust or normal woman. It does seem to me that the frequency and prematurity of the mental involution in woman has not been sufficiently considered. It might be best to regard the matter teleologically. Woman shall be the mother; but to become this she must have a man who provides for her and the children. Conditions must exist to induce the man to do this. Schopenhauer says: "Nature has provided girls with what is called stage-effect in dramatic parlance, in that she supplies them for a few years with superabundance of beauty, charm and plumpness at the expense of all the rest of their lives, so that in these years they could engage the fancy of a man to such a degree that he is constrained to honorably care for her hereafter in some form." It is to be added that the girl's dowery does not consist of physical attributes alone, and that the loss which women suffer relatively early does not refer to these merely. Much more than is usually thought, appearance and mentality correspond. Thus the mental changes correspond to the evolution and involution of feminine beauty. The mind of the maiden is excited, spirited, keen. Hence on the one hand she is qualified to take part in the sexual selection, of being equal to her opponent in

the courtship and love contests. The whole significance of feminine life depends on the girl getting the right man; all forces are directed to this moment, the climax of life, and all the mental faculties are concentrated on the one purpose. The intellect is the servant of the will, *i. e.* our insight serves our impulses, we are then only sagacious when we follow our inclinations, which interest makes shrewd. One has this talent, another that, in what he likes he is apt, in others not. Feminine talent is merely the aptitude for love affairs; here the will controls the intellect, sharpens and braces it. All other affairs only obtain real importance through their relation to the cardinal matter. When the maiden meets the young man, she is in the position of the Field Marshall who advances toward the hostile army. It is now true that everything further may depend on a few moments. But out of battle (to continue the military parlance) the maiden is to be compared to a mobilized troop. She is equipped, on post and ready to fight. The mental excitement is manifested in all her actions. The girl has a passion for things which do not at all concern her, is interested, in part at least, only in appearance, but in part earnestly in all possible affairs, judges, argues, in short she seems to be intelligent and in love affairs often a genius. She now marries and in a short time is changed. The spirited, often brilliant, girl has become a simple, harmless woman. Of course this is not always the result, but very often. People have noticed the transformation in manner and explain it in their own way. It is assumed that with maidenhood a spell was broken, that secret powers disappear. In the Nibelungeliede the virgin Brunhilde conquers every man; when she is overpowered by Siegfried she becomes a woman like others. Similar statements are often found in legends. In modern times it is said, she no longer requires it, in the opinion that the physical and mental vivacity has been merely for the purpose of decoying the man. But in any case it is not only a matter of an inclination, of which the woman could give no account. She actually loses capabilities she once possessed, and can no longer do what she once did

however much she tries. Now there can be no doubt whether the minus in mental function is to be exclusively explained by the suppression of the excitement inciting the intellect.

In those who have borne the first year of marriage well decline often begins after a few confinements. As the beauty and physical powers disappear the mental faculties also retrograde and the woman becomes 'narrow-minded,' to use a popular expression. It is often unnoticed or at least causes no annoyance, because the emotional attributes are unchanged and in ordinary life no mental demands are placed on the woman. But the attentive observer will not be deceived and the fact of this narrow-mindedness is often recognized. The disciples of emancipation have often referred to it spitefully and of course ascribe the mental deterioration to the degrading seclusion of the nursery and kitchen. Here as elsewhere, the explanation by the 'milieu' is superficial. No restriction would occur if special mental requirements existed. In many women relatively, whose brain is substantially constituted, it really does not occur, or, if the conditions in fact admit only the necessary, the mental vigor is retained in spite of children and cooking. Doubtless all do not succumb to narrow-mindedness, a condition which evidently has its causes in congenital attributes, if it is not always possible to obtain a better conception of it. If we except many who are poorly constituted, whose mental life is minimal and in whom at the period of development nothing is to be noticed of mental brilliancy, the woman may be compared to a troop which has to withstand repeated assaults of the enemy, *i. e.* time. Many fall in the first onslaught or become invalids after a few years of marriage, others hold out longer, but gradually succumb, whether they have become unambitious women or wither away to queer old maids. But those left have yet to hold out against the enemy's grand assault, the climacteric. The higher the creature, the later it matures. Because Nature matures man later than woman, she prefers him and shows that she wills something higher of him. But much greater is man's favoritism, for he may retain

the faculties once acquired almost to the end of his life. Whereas the prematurely mature woman has on the average only thirty years in which it is complete. The climacteric chiefly indicates the cessation of the sexual function, but as the organism is a unit, the different functions are intradependent. An especially close relation exists between the sexual and cerebral functions. When the former were roused, the latter were changed and as the former disappears, the latter will also be changed. The first change is an essential plus, consequently the second will be a minus. We have therefore to expect from the climacteric, by which the woman becomes an "old woman," a deterioration of the mental faculties. I also observe there are exceptions, that many old women enjoy a remarkable vigor to extreme age. But they are merely the Old Guard, which did not surrender, but repulsed the grand assault of the enemy; the main body of the army succumbed. It must be remembered that the appearance is the reflection of the interior state. Physiognomy is often jeered at and in fact we are unable to discursively base our physiognomic opinions; it is a matter of an instinctive knowledge, but nevertheless we may depend on what the face tells us. Impartially consider the bulk of old women and think of the involuntary judgment. Well known is the abundance of sarcasm and unfavorable remarks made of poor old women in poetry, proverb and prose. Could all this be without reason? Could it be regarded as an expression of hostile sentiment, but where could it come from? Man does not hate the female sex, even when he is forced to wrestle with it. But for the woman no longer sexually active he must with certain exceptions, feel indifference or kindness mingled with sympathy. They have nothing more to do with her and the memory of our own mother should admonish everyone to charity. If nevertheless popular opinion says almost evil alone of them and proverbs rob them of most of their virtues, their own attributes must be to blame. They are charged with superstition, illiberality, meanness chiefly, quarrelsomeness, loquacity, gossip, all attributes which indicate a low order of intelligence and

constitute the mental weakness of women. In justice it must be added that the general opinion would be more charitable, if old women were less homely. Ill-shape is always hateful and people always hate what is actually ugly, as is seen in animals regarded as loathsome. The spiteful opinion overshoots the mark when it speaks of mischievous old women, malicious old witches, etc. The mischievous old women have not been worthless formerly, malice had not been charged to them so long as they had physical charms. The malice is at least revealed by the mental weakness and assumes comical forms, but it does not create it. The simple mental weakness of years fortunately leaves unchanged the really good attributes of woman, the maternal sentiment remains and in all spite of all stupidity an old woman may have a fund of tenderness.

After this general review something more definite should be said as to how the acquired physiological mental weakness of woman is manifested. It has already attracted notice that woman's ability to learn, the one usually most developed, ceases relatively early. It is very hard to ascertain anything more exact. A very striking trait is the gradual increase of the mental myopia. Only the most apparent is seen and therefore it is overrated. Improper economy is characteristic; great expenditures must be made, because one must not make too small an allowance and to save pennies, dollars are squandered. The exaggeration of small affairs is related; existing trifles cause the past and future to be forgotten, destroy all composure; great and small cause the same excitement, and the truly important matter is neglected for some trifle. Unfortunately experiences are usually ineffectual and explanations cause theoretical assent, but do not better the conditions. "I was so once." The weakness of judgment is especially prominent, because instinct is blunted with age. It is often concealed by the use of someone else's opinion; but if the prop once fails the incredible misconception of every simple affair is horrifying. Suggestibility fails more and more, monotonous autosuggestions prevail and produce a wilfulness against which reason is perfectly powerless. Because the mind is

fixed the present is always right, "misoneismus" is developed and the reaction becomes mechanical. These things are peculiar to the aged, yet they are observed very early in woman and they have a peculiar tinge from being combined with feminine oratory. Who has not had the chance to listen to the arguments of old ladies, can scarcely have an idea of the length and emptiness of language. The simplest theme is elaborated into numberless variations and in allegro time. The picture of the flood of talk has been depicted in many ways: dripping eaves, rippling waves, etc.; the best perhaps is the comparison to an idly running mill.

A knowledge of the different forms of physiological mental weakness may be of importance clinically when it is a question of differentiating it from the pathological and he who takes his standard from man, is in danger of diagnosing pathological conditions in woman when they do not exist. The estimation of mild mental weakness is one of the hardest tasks and our clinical methods take account only gross changes. It is evident that a test by an ordinary examination as to present knowledge cannot be sufficient. Equally as little do the methods which permit an opinion as to the disappearance of simple mental processes, afford sufficient information. It would be the most important to test the ability for combinations. Rieger* has made several suitable proposals. Easy tasks in the way of enigmas and the like have been employed. It would be desirable in every case if the efforts in this direction had universal support. After improvement of the methods the clinical test alone cannot be depended upon. This will never be exhaustive, emotional conditions may have a disturbing effect, in short the observation of the person under the conditions of actual life will be indispensable. The judgment of the mental ability cannot be based merely on tests taken at hazard, but on the life history.

*Beschreibung der Intelligenz-Störungen Infolge einer Hirnverletzung nebst einem Entwurfe zu einer allgemein anwendbaren Methode der Intelligenzsprüfung. Verh. der psysik-med. Ges. zu Würzburg. 1888-89 p. 64. 95.

NORMAL AND ABNORMAL, RATIONAL AND IRRATIONAL, HEALTHY OR UNHEALTHY DELUSION.

By CHARLES H. HUGHES, M. D.

ST. LOUIS, MO.

IN THE recent contest of the will of Miss Brush, the deceased New York Christian Scientist, this question constituted one of the chief features of that remarkable trial and the court very properly held delusion to be consistent, while some of the medical experts testifying in the case appear to have unpsychologically and unscientifically held delusion to be inconsistent with sanity, whereas the true criterion of insane delusion is its relation to and dependence on a morbidly involved brain.

The human mind has been a prey to delusion, disease founded, or misinterpreted illusions or hallucinations, of one sort or another, since human life began, especially to hysterical and religious delusions.* The asylums do not show more of delusive mental self-deception among the insane than we see among the world that we call rational, outside

*The recent wild whirlwind of Wall Street stock speculation caught many emotionally exalted victims, some of them brain diseased, others the victims of psychic contagion. Extreme inadequately founded optimism in business may be delusion of physiological brain exaltation or it may be, as it often is, the fore-runner of paresis as much so as that opposite psychic state, pessimism is as we see it displayed in fits of the blues and melancholia. It is oftentimes disease founded, as the extreme pessimism of hebephrenia in its most morbid forms. Optic, auditory, gustatory and special tactile impression have given rise to illusion and hallucination in minds both sane and insane. The delusions of dipsomania and inebriety are not greater than those of erotomania, dipsomania and the illusory and hallucinatory delusions of the pudic nerve area, peripheral and spino-cerebral in the sane. This nerve and its marvelous ramifications and connections, influencing and influenced, in the economy of man and woman who have made and moved the world. It has been the doing and undoing of either sex in manifold instances and many wonderful ways. Because of its mysterious influences the wisest of men from Solomon down have marvelled at the "ways of a man with a maid." Normal delusion proceeding from pudic nerve impression reconcile individuals to live together who would oftentimes and otherwise be personally abhorrent.

of those abodes of minds gone wrong from disease of brain —too wrong to live with the rest of the world in normal harmonious relations. The disease engendered, delusion founded religious, and other movements of the intellectual world nearly equal those rationally established. The insane, deluded, have a justification and extenuation for their delusions of speech and conduct, in overmastering disease, which the sane world has not. Carlyle's criticism "mostly fools" was a just judgment upon much of the unbalanced reasoning of mankind.

It is the implication of the deluded mind with a brain, primarily or secondarily, organically or functionally, involved in disease, that brings the delusion within the domain of psychiatry. It is the coexistence of brain disease, the delusion being the natural product of the diseased brain, that constitutes insanity. Insanity is a disease, expressing itself in certain symptoms of mental derangement, due to disordered brain, among which are illusions, hallucinations and delusions, changes of character without adequate external cause, usually prolonged, but sometimes brief, constituting departures from the natural habits of thought, feeling or action of the individual, in which plainly defined or formulatable delusion may not even be discerned; delusive states shown in conduct; alterations in the *ego* (morbid egoism) or individuality etc., but all dependent on disease, all the offspring of disease, thus perverting the mind through involvement of its organ the brain. Febrile delusion is a temporarily typical insane state of mind. If temporarily recoverable from, under effective psychic impression, we call it only delirium. If persistant, and the patient cannot be aroused from it, we call it insanity, as in long continued traumatic delirium, the post-typhoid persisting delirium grave or typhomania, etc.

Mohamet's vision and auditory hallucinations have been clearly traced to his epileptic involvement of the brain, quite an adequate morbid cause of mind perversion as every cerebro-psychopathologist knows, and the visions of Constantine's cross in the heavens and the auditory hallucination "*In Hoc Signo Vinces*", went into history with the

greatest epoch since the days of Christ and the early apostles of the Christian religion. It founded Constantinople and gave rise indirectly to the wars that followed it with the "unspeakable Turk."

Mohamet's delusion had a disease basis; Constantine's has not been so proven. Delusion is not *per se* insanity. If it were, the world would not be regarded as sane. In proof are the delusional features of Swedenborgianism, Mesmerism or hypnotism, Dowieism, Mormonism, second Adventism, Amishism, Christian Science, sacred and royal touch, witchcraft, obcession, necromancymancy, hoodooism, high potency Hahnemanianism, Perkins Metallic tractorism and all the delusions of religion and otherwise, of the prolifically hallucinated Orient; the Alchemists dream of metallic transmutation, the fountain of perpetual youth of which Ponce De Leon dreamed, the gold dust followers of Columbus, the Geo. Law's South Sea Island Bubble, and the delusions of the stock exchange of to-day, yesterday and always, are proof that delusion is not insanity, though much insanity follows in their wake and many insanities are the offspring of delusion. Insane enthusiasts and enthusiastic paranoiacs often originate delusions, religious, social and political, and sane men and women become their deluded followers. Extreme credulity is not insanity, nor is the wildest imagination of faith, unless it is disease engendered credulity—for while disease engendered delusion of a certain kind, in which the *ego* is peculiarly and prominently manifested (egoistic delusion) often characterizes mental derangement, insanity of doubt, timidity and uncertainty of belief are likewise especially prominent as features of this disease; folie du doute, folie du toucher, the depressing self-deprecating convicting delusions and delusional states of melancholia and the delusion of disease possessed, or hypochrondia, of which the hopeful and delusional feelings of phthisical insanity and the exalted delirium of grandeur of paresis are in marked contrast.

Time, place, education, stage of civilization, the age of the world, hereditary endowment, rearing in childhood, and from childhood, parental teaching, habits, manners, customs,

associates; in short all environment and disease involving the brain in structure, function or circulation, all enter into the adjudication of the question of insanity. The question of insanity cannot be generalized. It is to be especially determined like any other case by diagnosis of disease involving the brain so as to cause symptoms of mental disharmony with environment or natural character of the individual under consideration. If there be no disease basis involving the brain and disordering the mind, it is not insanity and not within the physician's province for adjudication.

The question to be settled in the case of Miss Brush and all similar cases, was not whether she had delusions and was in consequence insane, but whether she had *brain disease engendered delusion and did not consequently display her normal mind in her will*, her last testament being the product of her mental disease. If disease of brain distorts the mentality so as to destroy or pervert natural and normal will in a testamentary document, so that the party is self-betrayed, self-misrepresented or self-wronged by his disease of brain and mind, then the will ought not to stand, whether delusion be shown or not, for delusion *per se* is not the crucial test of insanity, though a certain delusive state of mind caused by disease usually is, and I believe invariably exists. To be insanely deluded one must be dominated by an overmastering disease so distorting the mind as to make its acts unnatural and out of harmony with the natural mental character and will. The proof reasonably inferable of delusion may be only in the deed.

A large number of the world's people do not accept the dictum of David Hume "that testimony is more likely to be false than that miracles are to be true" and the Christian Science people are among the credulous who seem to believe in the possibility of any kind of modern miracles. The setting of the broken bones and the stopping of the fatal hemorrhage by absent treatment of mechanical injuries is believed on testimony by the credulous followers of Mrs. Eddy. It was believed by Miss Brush. It was believed also by Miss Brush that "though her blood were all taken out of her body she could yet be made to live by the power of

Christian Science healers." This was of course a delusion contrary to nature and all physiological experience. It probably was an insane delusion, but the disease basis necessary to make it so, appears not to have been fully established at the trial. An ignorant but sane person or an extremely credulous, but otherwise intelligent, sane person, superstitiously credulous as to the power of God, through miraculous employment of human spiritual influence, might believe this possible and yet be sane of mind. But this Miss Brush was sick, had been a long time ill with phthisis pulmonalis, a hopeless malady, that gives its victims delusions of recovery, not the same *bonhomie* and bouyant exaggerated hopefulness and delusions of boundless fortune or power as the paretic, but a delusion of hope, coming constantly into the mind, while destruction goes on in the lungs, brain or elsewhere in the body. She was a sick and feeble woman, her mind probably not sound because her body was not sound, when she clutched as one drowning, at the straw of hope given in the marvelous legends of miraculous cures in Christian Science fiction. But these facts and others probably connected with the history of the morbid development of Christian Science delusion were not so clearly apparent in the published records of the trial, so as to connect the disease involving the brain and mind as solely causative of the delusion or rather the facts as they have reached me through the medical and public press. This is not therefore a criticism of this case but only a reference to it as an illustration. Delusion, to stand in court as representing insanity, must be proven to be a disease engendered delusion or diseased causation must be a reasonable scientific influence.

The optical illusions of physics astonished us in our boyhood days, the deflected line or fishing rod as it went from the rarer atmosphere to the denser water medium, for instance. They deluded us when we saw them for the first time, especially the mirror reflections before we understood the relation of the angle of incidence to that of reflection. The illusory mirages of the sea and desert are delusions to the novice in travel, and it is not insanity to believe in them. But if disease of the brain develops subjective mirages which

we accept as facts and determine our life and conduct by them and we fall under the dominion of insanity, because it is brain disease engendered delusion. This is the true criterion for the alienist expert, for all insanity so involves the brain and its related and dependent mind, as to change the normal mental characteristics as expressed in its natural habits of thought, feeling or action, or where the insanity appears in congenital form, so as to change the character of the normal family type of mind. A part of this changed character brought about by disease, involving the brain which we call insanity, is delusion, either plainly expressed or displayed in more or less delusive conduct or feeling or speech or other character change a self-delusive change, though not always plainly recognized as demonstrable delusion, especially to the non-expert psychplogist, may be shown only in the character change.

Insanity is therefore a psychic, more or less self-delusive change of the individual, caused by disease involving the brain. This we have learned of its autopsic revelations from Schroeder von Kolk to Bevan Lewis and from its clinical study in the corridors and courts of our hospitals and in the rooms and dormitories. The neurones of the grey cortex are either demonstrably or inferentially involved directly, or in the centers of circulation, or the quality of the circulation (anaemia, hyperaemia, haematoxicity, auto, or chemical from without.) These are involved as its cause plus the inherent or hereditary psychopathic aptitude—the insane and neuropathic diathesis or predisposition. A bio-chemical change of neurone caused inherently or by its environing lymph, takes place.

No one can precisely say how much of the world's accepted delusion is due to active or inherent psychopathy but a great deal thus originates. The wild visionaries, enthusiasts and votaries of the baseless, improbable and impossible; hysterics, cranks and emotionally crazed reformers that continually astonish the world's calmly reflecting, well-balanced people, are often afterward found to be paranoiacs and their first followers tainted with hysteria or other forms of neuropathic diathesis, entailed by psychically

damaged ancestry or active victims of already developed psychopathy or its fatal ally, neuropathy. The Convulsionaires of the middle ages, the excesses of thc Guillotine days of the French revolution, the triumphant career of Joan of Arc, the cruelties of the witchcraft craze and Inquisition, the fanciful exaggerated beliefs attached to mesmerism, etc.* Physiological integrity of the psychic neurone is the basis of mental integrity and judicial balance.

The philosophers and sages of old had their familiar spirits. They were not insane. A search of history among the great and good and among the weak and wicked, would show overwhelming evidences of delusion not necessarily associated with insanity, but more often so ending than otherwise, when the life history of the deluded has been minutely traced. The greatly brain-strained either by overwork, worry or vice, live in peril of delusion.

One among the great and good, greater than all in good works and in love of mankind whom I hesitate to name in this connection, least I might be misunderstood, had a vision and heard a voice from Heaven while on his way to Damascus and his subsequent career was a crisis in his life and a momentous epoch in the world's history. Saul of Tarsus was a studious mind and strained to its utmost by the mental strain of remorseful conviction. The conditions of the cerebral neurones under the excessive lymph baths of arteriole hyperaemia have become familiar to us under modern psycho-neural research. Paul's vision is a now demonstrable possibility to psychology and psychophysiology, though a then mystery and miracle and since denied possibility. Visions and voices and communion with the in-

*The cults of the psychic cranks are many in religion, and the faith cure followers are too numerous to enumerate. Dr. Robt. T. Morris has lately tried to name them and here is the list: Doweites, Weltmerites, clairovoyants, eosteric vibrationists, magnetic healers, phrenopathics, viticulturists, venopathists, psychic-scientists and some twenty other cults that are flourishing in America to-day. It was testified last year in Missouri that Weltmer alone employed sixty-five stenographers to attend to his absent treatment business (vide *New York Record* May 4th). The leaders and those who are lead are not all insane. A psychopathic storm of healing arises and sweeps across the land catching the hysterically delusioned and sounder minds in its grasp. All are not insane though many appear so. Observation deludes some and disease, especially the hallucinnated imaginings of delusional hysteria, others, Some of the cures are real, through the potency of psychic suggestion, especially over functional disorder and some organic changes through powerful mind impression and the force of strong imagination. Faith is a potent factor in cure. All is not delusion and all delusion is not insanity. If it were, what a fearful state of mental aberration have we reached in this day of marvelous imaginings! Weltmer and his managing advertiser were both probably sane.

visibles though common to the insane, may come in times of mental stress to sane minds and we must recognize the fact in all psychical analyses.‡

While it is evident that delusion abstractedly and unqualifiedly cannot be considered a diagnostic datum in Alienism we find it often the precursor of final and grave brain-break that may give rise to disease engendered delusion. Delusion appears in the life of renowned historic personages like Robert Stewart, the great Irish Commoner, one of three British Commoners made Knight of the Garter during two centuries, later known as Lord Castlereagh and Lord Londonderry, a leader of the House of Commons, England's Secretary of State in the days of Waterloo, Wellington and our own war with the mother country, and predictor of Napoleon's second downfall. Castlereagh was often visited of mornings in hallucinatory vision by a radiant faced child who came and stood at the foot of his bed. Castlereagh finally "became possessed of many strange delusions which clearly indicated that his mind was unhinged by overwork" says his historian, through the pressing cares of state, and ended his life in suicide. This was his second attack of well-recognized insanity, the first attack coming upon him after the perfection of the union of Ireland with England, which he had favored, and after his resignation from the British Cabinet.

The oft appearing guiding star of Napoleon which lead him on to glory and destruction, to rational and irrational adventure, into wise and unwise campaigns, into conduct moral and immoral, grand and degrading, was a forerunner of his after developed epilepsy and eventual life ending cancer. His rash, cruel and disastrous campaign of Russia,

‡I will not here, for want of time, enter into the discussion, as has been done by others elsewhere, notably Caesare Lombroso, but be content to assert that though Paul was not always a well man I have not reached the conclusion that he was ever insane. Small and deformed of stature and poor in health he probably had a neurosis, as has been conjectured and which Paul may have meant to designate by his expression "a thorn in the flesh." (Hyperaesthesia? neurasthenia? but not necessarily a psychosis.) A fierce, immoderate, relentless persecutor of the Christians, consenting unto the stoning to death of Stephen the proto martyr, he nevertheless suddenly relented, suddenly changed, and remorseful for the past, embraced the new faith and became its most ardent and zealous advocate. In the school of Gamaliel he had learned violence and persecution when passionately excited; under the power of Christ's tender teachings and spiritual influence he acquired the greatest of human virtues, Charity, and felt and applied its force in all his after life.

his broken faith at Elbe, and the ruinous ending of his meteoric career of carnage and crime and conquest at Waterloo and St. Helena, attest the final morbid unbalance of his once great mind.

A. Brierre de Boismont in his "Rational History of Hallucinations" or delusion, as we term them, maintained that hallucination was not a necessary accompaniment or symptom of insanity, but that in certain cases it might be a purely physiological phenomenon. Among the hallucinations consistent with reason he mentions the beaming faced halo encircled child that appeared to Lord Castlereigh and Napoleon's star, already mentioned, and Bernadott's belief in a special destiny and a tutular divinity and many other instances, among them the haunted house of Athens described by Dendy where Athenodorus spoke to the specter, Forbes Winslow's account of Melabranche's and Descartes' auditory hallucinations and the spectre Byron saw as described by Forbes Winslow. The arm that Pope saw come out from the wall, Goethe's visual double, Cromwell's imaginary giantess who opened the curtains of his bed and told him he would be the greatest man in England, and the young woman and other visions of beauty that appeared to Benvenuto Cellini and averted his suicide, etc. These instances and many others are cited to show that hallucinations are consistent with reason. "It is requisite," he concludes "in order to be true to the etymology of the word (alienation) that the intellectual portion of consciousness or that belonging to the affections, be injured." "That the individual be master neither of his will nor of his judgment and this conclusion is a quotation from A. de Chambes' analysis of Stafkowski's work on Hallucinations in their Relation to Psychology, History and Medical Jurisprudence, a masterful work in its day and so now, regarded from the purely psychological side of our study, but lacking in its psychopathological aspects, for the latter were far less known in the middle, than in the latter decades of the just closed century. Now we know that it is *disease* that makes the difference between morbid and normally excited delusion and resistless and not self-recognizable delusion involving

the brain; disease that makes true irresponsible insane delusion, disease such as, in milder form, Nicolai, the historic Berlin bookseller, recognized as the cause of the phantom corpse and the spectral friends that appeared to him after a series of uninterrupted misfortune that effected him with poignant grief. Nicolai's comparing faculties were sound, like those of Dr. Bostock, the old English physiologist, who recognized his own visions as the result of a sleepless night and fever.

The psychological test for insanity as a lesion of the comparing faculties of the mind would rule out many of these hallucinations as evidences of insanity. The term hallucination was used by Boismont, and is yet by other French writers, as synonomous with delusion, whereas we are supposed to make a distinction, the first being a false perception through the senses which the reason does not confirm as a true objective, but suspects as a subjective impression; while delusion is a subjective impression of the senses or erroneous or entirely false impression or conception of the mind accepted and acted upon as absolutely true, and when it amounts to an insane delusion, it is the development of a disease involving brain and mind.

Neither hallucination, nor delusion, but disease developed hallucination, passing into delusion or delusions originating as such, and so dominating the mind, that the victim cannot be reasoned out of it, constitutes insanity. Delusions whose impressions and impulses the victims cannot, because of the brain-involving disease, resist in conduct, or speech or writing or all combined, such combined brain and mind disease with or without perceptible or definable delusion, is insanity, as it is clinically presented to the practiced alienist. Disease is the true basis and test of delusion as a criterion and concomitant of mental alienation.

To make myself clear let me make the following definitions: Illusion is a mistaken or partially objectively founded perception through the sense nerve channels or perception avenues of the brain. Hallucination is a false, subjectively and entirely unfounded perception through the sense, or perception channels or areas of the brain. Delusion is an entirely false conception of judgment and conclusion as

to the verity of illusion or hallucination, mistaking the real for the unreal, and so persistent in believing the unreal to be real and true, that the mind cannot be reasoned out of the delusional error of judgment. Insane delusions are subjective errors of judgment of entirely false judgments, brought about by a mind involved in disease implicating the brain. The insane mind may momentarily assent to the unreality of a delusion but immediately reasserts it.

The illusioned person misinterprets an impression external to the brain. His illusion is an error of perception. He half or part interprets. Something objective excites it, but it is not the normal natural impression the object ought to make. The disturbed brain finishes the unreal picture.

The hallucinated person perceives that which is absolutely not existent save as a psychic false impression in the sense areas of the brain, a disturbed state of the psycho-sensory neurones evolving the false perception.

The disease consisting of "delusive sources of thought" as Lord Erskine with a sort of psychic inspiration respecting insanity, not common to our worthy brethren of the legal profession, maintained in regard to the famous lunatic, Hadfield, who shot at the King in Drury Lane Theatre in 1800 under the domination and impulse of the delusion that he (Hadfield) had constant intercourse with God—that the world was about to come to an end and that he, (Hadfield) was to sacrifice himself by taking the life of another (*Ray's Med. Jour. Insanity* Page 24 ed. 1860), and in the cause of Bellingham also quoted by Ray, who, through delusions brought about by disease involving the brain and mind, murdered the official predecessor of Lord Castlereagh, the Hon. Spencer Percival, in 1812.

The delusive sources of thought in the insane, are in the disease-involved brain, causing the mind operating through it and dependent upon it for its power and accuracy of manifestation, to respond abnormally to its normal environment.

Erskine was not always so clear in his pleadings, for in the case of Arnold*, Ray criticises him for not recogniz-

*"It is surpising and perfectly unaccountable" says Isaac Ray (note 1 page 24) "that Mr. Erskine, in adverting to the case of Arnold, should have declared "that his

ing, with the same clearness as in the Hadfield case, the morbid cause of Arnold's delusive source of thought when he shot at Lord Onslow who Arnold believed sent "imps and devils into his room at night and constantly plagued and bewitched him by getting into his belly and bosom so that he could not sleep nor eat" who thought "it better to die than to live so miserably" and manifested no compunction for what he had done.

Disease involving brain and mind in disorder, especially of the cerebro-spinal axis is exceedingly common. The deuteroscopy, in which the sick person sees another one living beside him, hovering over him, or walking about him, is a familiar clinical picture in the delirium of typhoid or other continued, as well as remittent and intermittent, fevers. Hallucinations of smell (hyperosmia, anosmia, etc.,) of vision (pseudopia) of touch (anæsthesia, analgesia, hyperaesthesia, hyperalgesia, paraesthesia, etc.,) and of hearing, are symptomatic, in neuro-diagnosis, common to hysteria and organic nervous affections and like aphasia above, and the pains of spinal sclerosis below, in the cerebro-spinal axis, may not necessarily involve the mind in disorder, though sooner or latter in cerebro-spinal disease, we are accustomed to see the mind frequently involved.

Current medical literature teems with spinal and sensory nerve delusion and hallucination and all the writers of the past and present on psychiatry* give us abundant illustration of disease of brain involving mind in such distorted action that the individual is unnatural and deranged, out of harmony with his normal self and his ordinary surroundings, mentally mal-adjusted to the world he lives in, disordered and abnormal in his tastes, emotions, impulses, inclinations, and in many ways not in normal harmony with

counsel could not show, that any morbid delusion had overshadowed his understanding." If it were no delusion in Arnold to believe that Lord Onslow was the cause of all the turmoils and troubles in the country—that he bewitched him in particular by getting into his belly and bosom, and sending his devils and imps into his room to prevent his rest; it surely was none for Hadfield to imagine that he had constant intercourse with God—that the world was about to come to an end—that he was to sacrifice himself for its salvation, by taking the life of another. Either the able advocate in his zeal for his client, must have egregiously deceived himself respecting the facts of Arnold's case, or have attached some ideas to delusion, which have never entered into the ordinary conceptions of that kind of belief.

*Rush, Ray, Van der Kolk, Griesinger, Dendy, Boismont, Esquirol, Abercrombie Bucknill, Tuke, Casper, Connoly, Maudsley, Mercier, Blandford, Ireland, Le Crande du Saule, Berkely, Church, Chapin, Clowiston, Regis, Sankey, Kraepelin.

his own or environing brain and mental life. He impresses us as fitted for some other sphere of mental life, if adapted to any mental life at all. Society very properly adjudges sequestration and exclusion from the homes and hearths of the ordinary normal mind, the proper place for many of these, but by no means all. In this respect hospitals for the insane, the asylum for the demented, and psychopathic retreats get scarcely half their due.

Delusion therefore may be psychopathic. To differentiate the one from the other is the burden and the task of the Alienist. To draw the line is sometimes difficult to the experienced phreniatrist, though the problem is often treated as a simple one by novices in psychiatry.

Obviously the true line of demarkation between the two similar psychical conditions is through a masterful comprehension and critical study and recognition of the normal physiological basis of the one and the abnormal pathological foundation of the other through application of all the criteria of mental alienation, since one may plainly proceed from normal and the other from abnormal states of brain. These criteria are to be found, as we all know, through interrogation of the special and aggregate symptoms of insanity considered as a mind-perverting disease involving the brain; symptoms revealed to us through both psychical and physical evidence. The mental aberrations of speech and conduct conjoined with delusion and the accompanying insomnia or somnolency, cardiac disturbances and pulse changes as shown by the stethoscope, or phonendoscope, sphygmographic tracings, etc., coexisting haemic, renal, hepatic pulmonary or other visceral or systemic morbid conditions giving a positive or presumptive basis of cerebro-psychic alterations of the blood in quantity, quality or vascular tension, alterations of the blood and secretions as revealed by microscopic or test tube examinations. Skin, hair, nails, eye, pupil, eye, contour, or expression changes, teratological alterations or other departure from the normal. In short whatever indications may be found by tests of psychic diagnostic skill to show undermining influencing or destroying disease, involving primarily or secondarily the

psychic neurones or the neuroglia. These and the psychic symptoms they engender as connected with delusive feeling or conduct, the morbid aversions, unnatural antipathies, diseased impulsions, unnatural violences, deranged volitions and emotions, groundless fears, dreads, doubts, unnatural vagaries, extravagances and perversions of speech and conduct at variance with the natural character, inexplicable except on the ground of delusional excitation, make the picture of the disease deluded mind as morbid nature paints it to the Alienist.

The physiology of delusion being an admitted fact and one phase of the question, we must establish its pathological relations and dependence on disease involving the brain in disorder, in order to make out a clear case of undisputed insanity. This may be done by direct and incontrovertable disease connection established, as in the blind fury of an epileptic homicide or the blood and brain depraved suicidal depression of melancholia or in the pitiful delusions of the fated victims of delirium grave of typhomania whose blood-poisoned and disorganized brain doth so often

> "By the idle comments that it makes
> Foretell the ending of mortality."

THE PHYSICIAN'S DUTIES IN COMMITTING INSANE TO THE HOSPITAL.*

By PROF. HOCHE,‡

STRASSBURG.

IF I try now to present the points of view, which shall be decisive for the physician in answering the questions, I will not adhere to any one formula; I will use as basis that classification, which seems to be the most natural and simple.

Every clinical history, no matter of what form of cerebral disease, whether idiocy, epilepsy, other neuroses or psychoses, has to begin with the *history of the patient's antecedents*, which in diseases of the central nervous system, more than in those of the other organs, has to go back of the existence of the individual to the progenitors and their relatives.

If the estimate of the percentile frequency of 'hereditary taint' varies very much numerically in neuroses and psychoses, the fact of the powerful influence of morbid states in the antecedents on the nervous system of the following generations is no longer denied by anyone.

For the attainment of the anamnesis as to this point more than the existence of 'mental disease' is to be inquired about; the abnormal condition of the central nervous system may be manifested in many other ways. It is to be considered *e. g.*, that back of abnormally choleric irritability, back of a periodical tendency to excesses in drink, or more often recurrent 'eccentricites,' attacks

*Continued from the ALIENIST AND NEUROLOGIST, July, 1901.

‡English by Dr. W. Alfred McCorn.

of headache and vertigo, epilepsy may be hidden, that a large number of suicides, for which external conditions are ascribed as motives by the laity, are committed *in states of melancholic depression*, that many social "failures" are the expression and consequence of pathological predisposition in form of a mild degree of mental weakness, that the peculiarity of many persons is explained only by the existence of a periodical or circular mental disorder, etc.

To be perfectly clear in this respect the physician must inform himself in detail of the history of the several members of the family including grandparents; experience teaches that little material well investigated shows the influence of heredity more reliably than a large number of cases treated schematically as to the anamnesis.

Both progenitors exercise a most powerful influence on the embryo, the prospect of becoming mentally ill is naturally greater when the abnormal influences gain force from both sides, and is the most serious when the two progenitors have been subject to identically the same hereditary, abnormal nervous effects, *i. e.*, when they are blood relatives; special inquiry is to be made as to the existence of this factor. The value of the several neuroses and psychoses in the matter of hereditary taint of the offspring varies greatly as we know; the 'constitutional' disorders occurring with a certain necessity from the congenital organization of the person concerned, like the periodical psychoses, chronic paranoia, many cases of epilepsy and hysteria, are therefore more serious for the following generation than the *acquired* psychoses, as *e. g.*, exhaustion delirium, hallucinatory confusion or progressive paralysis.

Procreation during intoxication, which for a time was very popular in medical literature as a cause of epilepsy, has been greatly overrated as to its importance; very much more essential is the pernicious influence exercised by *chronic alcoholism* of one or both parents on the genital glands and their products.

Parental syphilis, particularly when its influence has been plainly manifested in preceding abortions or still births, is not only of importance in the origin of the rare cases of juvenile progressive paralysis, but other nervous and psychical disorders.

A few non-nervous diseases in the ancestors, like *arteriosclerosis* (hereditary tendency to apoplexy,) *diabetes* and *tuberculosis*, are to be taken into account in the anamnesia of the insane.

The facts must be borne in mind that in a way unknown to us *one* generation may be *skipped* by the unknown influences of nervous heredity, even remain well and still beget sickly offspring, further that the diseases in the side lines (uncles, aunts, cousins, etc.,) may plainly manifest the existence of heredity.

The conditions under which the *intrauterine development* of the individual has occurred must not be disregarded; the possibility of an influence on the embryo, which once was greatly overrated ('mistakes') of late has certainly been too little considered; if no nervous elements unite the mother's and child's organism, still the common relation with respect to metabolism is a means by which pernicious effects may be conveyed by the mother to the foetus; our times, which have discovered the remarkable relations between the products of metabolism, secretions of organs, etc., on one hand, and the central nervous system on the other (myxoedema, cretinism, etc.) will not permit the possibility being denied a priori that inversely psychical impressions of the mother may effect the uterine contents in some form and influence the development. (It is evident that alcoholism of the mother may damage the foetus.) Therefore from this point of view attention must be given to the *course of the pregnancy* in the anamnesis of the insane; that pregnancy is attended by unpleasant emotions in *unmarried* females is to be assumed as a rule: this point is also to be regarded.

A number of cerebral derangements are to be traced to the *act of labor* itself. If the brain of the new-born possesses a marked power of resistance to the mechanical effects of

normal labor, like pressure, displacement of the cranial bones, etc., this is changed when it is a matter of *gross pernicious factors*, like protracted wedging of the head in the narrow pelvis, face presentations, pressure from the forceps, etc. The way in which a permanent injury of the brain substance is most often effected in the formation of intracranial haematomas, *meningeal hemorrhages* with subsequent destruction or non-development of parts of the cortex; the most common clinical type, which corresponds to their anatomical processes, is the *cerebral spastic paralysis* of several or all extremities, *mental weakness* to idiocy, chorea, *epileptic seizures*.

In all cases in which these symptoms exist singly or collectively, the anamnesis of the labor must be especially considered.

The *manner of development in the early years of life* often has much that is characteristic in the cases of juvenile mental weakness and early epilepsy. The tendency to react with *convulsions* in trifling physical disturbances or, in older children, with *delirium* is to be especially considered, then—for the estimation of possible rachitic processes—the time of *closure of the fontanelles*, *dentition*, the *first efforts to walk* and *talk*. Moderate degrees of *hydrocephalus* in the early years of life do not by any means give a bad prognosis for the later mental development; there are a few highly intelligent persons, whose cranium renders probable the former existence of a certain degree of hydrocephalus. The existence of *pavor nocturnus* is to be inquired about. After early years of life have passed the development in the *school period* is of importance, not only in regard to the ability to learn, but as to the way the individual has reacted to the first contacts with the world.

Even at this early age *masturbation* may play a part. The time is passed when masturbation was regarded as the cause of all possible psychical anomalies, particularly the processes of juvenlle mental enfeeblement at puberty; it is now known that excessive masturbation is not a *cause*, but a *symptom* of abnormal mental states; the uncommonly prevalent onanistic manipulations in maturing youth are better

understood than formerly, in whom not *what*, but *how* and *how much* is it characteristic of pathological nervous constitution. The statement of an old Catholic priest was very instructive in this respect, to the effect that after thirty years in the priesthood he had not had a single youth who had not masturbated at some time.

With the approach of puberty and its occurrence, divergent points of view become of importance for both sexes.

In boys and youths this is the period in which inferior intellects begin to fail in the increased demands of education, trade and commerce, after they had heretofore held their own during the years of learning by memorizing; at this time the processes of mental enfeeblement mentioned begin, which are embraced under the name of 'hebephrenia.'

In the anamnesis of psychical diseases in the female sex the *condition of the menses* is to be considered. Quite often an abnormally late appearance of the first period is found as one of the signs of degeneration; at another time the first menstrual periods may be accompanied by such marked variations in the emotional equilibrium that they may be regarded as the first sign of a subsequent periodical mental disorder.

Also for the subsequent life of a woman the conditions of menstruation are of such importance that information regarding it must not be omitted from the clinical history of psychoses; the menses are suppressed in numerous functional mental disorders, to reappear before or with improvement, they are absent as a rule in morphinism; their final disappearance at the climacteric is frequently an attendant or exciting factor of mental disorders.

The significance of the phenomena comprised under the name '*processes of propagation*' on the tendency to mental diseases of women is generally known; in cases of psychical anomalies during pregnancy, at and after birth, or during the later puerpurium, the mental condition in previous confinements is always to be taken account of. It must not be forgotten that a certain degree of dejection or subjective depression occurs in many women during pregnancy without entailing serious consequences.

In the anamnesis of man the interest in sexual processes besides masturbation, already mentioned, is essentially limited to the question of syphilitic infection, less to quantitative excesses or possible episodes of gonorrhoea. The great importance of *syphilis* in the origin of progressive paralysis is now quite generally recognized; the fact recently established that a large portion of sane people with unmistakable tertiary symptoms are entirely ignorant of the infection, takes much from the force of the argument cited against the syphilitic etiology of paresis, that such an such a per cent of the patients are to be proven syphilitic. As to this point in the anamnesis the statement of the patient or wife, that they "know nothing" of the syphilis does not suffice; the physician may be convinced of the existence of a syphilitic history by means of *indications (abortions, stillbirths, etc.)* It must not be forgotten that *wives of syphilitic men* may be infected by the child born to them and suffer with the late forms of syphilis, *without ever having had secondary symptoms.*

Corresponding to the different position of the two sexes socially the *external etiological factors* are far more important in the anamnesis of man than of woman; *chronic poisonings* and *accidents* deserve special consideration in this respect.

Chronic *alcoholic intoxication* occupies the first place in point of frequency.

The concept of 'inebriety' varies greatly; while the adherents of the recent extreme temperance movements call the consumer of ½-1 litre of beer daily an 'inebriate,' others apply this term only on the appearance of the distinct signs of poisoning, like tremor, cirrhosis of the liver, etc.; the alienist is best served when the *average daily quantity* is stated in cubic measure or in its cost; very many individuals of the hard-working class have their fixed amount of beer or whiskey, wine in southern Germany, for the usual week days; the statements of hotel-keepers and brewers are unreliable. Statements as to possible *abnormal effects of alcohol ('states of pathological intoxication')* are of importance owing to their diagnostic significance in epilepsy.

Poisoning by lead is to be concluded as a rule, without objective signs at the time of the examination, from the characteristic statements as to colic or paralyses in conjunction with the fact of using preparations of lead in the vocation.

The chronic *use of medicines* (morphine, chloral hydrate, cocaine, trional) is to be especially investigated when the patient's vocation facilitates procuring the substances (physicians, apothecaries, druggists, midwives.)

The importance of establishing a causative connection between diseases of the central nervous system and previous *accidents* has been essentially enhanced by recent legislation, without the importance of their coöperation having been fully realized by all physicians with sufficient keenness.

The physician of the hospital or clinic, on whom in the more severe cases as a rule the final opinion devolves, usually has no opportunity to learn anything reliable, perhaps after months or years, as to the *details of the accident* at a distant place, as to the *condition of the patient before or immediately after the event;* exact statements by the *first* physician, to whom the witnesses of the affair are personally accessible, may be of the greatest importance, perhaps decisive.

Secondly in accidents apparently followed by nervous disease it very often occurs that *cause and effect* are *confused*, in that *e. g.*, a fall from the scaffold in consequence of an attack of vertigo in an epileptic or paretic is now advanced as the cause of the epilepsy or paresis, and that again an accident, which occurred during the long preceding development of a chronic nervous trouble, like multiple sclerosis, syringomyelia or a psychosis is ascribed as a cause in good faith or fraudulently.

In both cases only the anamnesis taken on the spot from those about the patient can serve as the basis of an opinion.

The same is true, when irrespective of any claim for damages, it is a matter of purely medical question as to what degree prior *physical* exhaustive diseases, typhoid, influenza, anemia, malaria, etc., have had a causative influence on the development of mental disorders.

In ascribing psychical disorders to the *effect of emotions*, *mental stress*, etc., the physician must beware of making too great concessions to the opinions of the laity, in good part false, although very prevalent as to this point.

The favorite *psychological* method of explanation, which may ascribe a melancholia *e. g.*, to a love affair or worry over unsuccessful undertakings, paranoia of a religious nature to going to church too much, a progessive paralysis to overwork, is false as a rule; it is true that *fright* and great *anxiety* from an attempted rape or danger from a fire may suddenly excite a psychosis; it is correct that persistent worry or living under constant disagreeable conditions accompanied by humiliations and illness may give rise to a mental disease; but usually with the chronic pernicious factors simultaneous physical phenomena—insomnia, lowered nutrition, disordered digestion, lack of outdoor exercise—are to be accounted at least equivalent etiological factors.

The physician who claims a causative connection of a psychological sort in his certificate for commitment, must furnish better proof than the attempt of explication by the relatives.

First of all, caution is demanded not to confuse cause and effect; many times changes in the habits of life, tendency to excesses, restlessness, irritability, etc., are not causes, but prodromal phenomena of the approaching mental disease; to render an opinion possible *statements* as to the *former character* of the patient, usual *habits*, *idiosyncrasies*, *antipathies*, *superstitions*, etc., are indispensable.

If a *nervous or psychical disorder* has occurred once or more times in the *past life* of the patient, the most exact statements of it are to be obtained.

The prognosis of the individual attack and the general views as to the future prospects in life will be essentially influenced, whether or not the existing disorder is a *component symptom* of a *periodical* disease.

Particularly when the symptom complex of melancholic depression or maniacal excitement exists, the most exact anamnestic statements in this respect are necessary, as well as in the investigation for prior epileptic seizures,

which must be traced in their manifold disguises *(syncopy, attacks of vertigo, brief loss of consciousness, somnambulism, dipsomania, enuresis, desire to wander away,* etc.)

If now finally in the list of questions, after describing the possible causative influences and prior diseases as reasons for commitment, the abnormal mental state must be described, the data given above is applicable for the limitation of symptoms indicated as "*prodromal phenomena.*"

Very often from thorough knowledge of the patient and careful examination of the nearest relatives, if properly comprehended, it is seen that slight physical or psychical anomalies have alone preceded the outbreak of the grosser disorders.

Disorders of sleep, loss of appetite, constipation, decrease in weight, feeling of weariness, and *aversion* to mental work, *irritability,* groundless *depression,* etc., are to be taken into consideration.

The sort of premonitory psychical changes strictly depend largely on the form of the psychoses or neurosis which will develop and cannot here be discussed in detail as to all the numerous possibilities; in every case particularly in the psychoses of tedious, chronic course it must be determined how far back "*changes in character,*" *distrust, depreciation of the general functions* and the *general interest,* or *heightened activity, tendency to extravagance, irritability,* etc., can be traced.

The establishment of the real *commencement* is easy as a rule in mental disorders of acute onset, while greater difficulties may be encountered in chronic psychoses developed slowly from prodromal symptoms; the limitation as to time is always voluntary to a certain degree.

The description of the mental and sentiment constitution of the patient, the outline of the psychical "*status praesens*" is generally hard, particularly for those of slight experience; it is by no means easy for one who has not learned to systematically analyse psychical anomalies to describe abnormal mental states clearly, concisely and convincingly to a third party.

In many cases, particularly when a patient has just been taken to the hospital, a good anamnesis is required of

the physician, but not a detailed *status praesens*, for the alienist will immediately secure it himself, but it is different when the medical evidence has to conform to the prescribed forms for commitment to the institution in mind, whose superintendent will form an opinion by means of the list of questions, whether the patient is suitable for admission according to his prospects, etc. An exact description of the psychical condition is essential, when a part of the psychosis has been treated outside of the hospital. In every case the physician must know what he thought of a given case to write such a description.

It is evident that the description of the mental anomalies must be preceded by exact statements of the *physical conditions:* state of nutrition, internal organs and results of the general neurological investigations, condition of the cranial nerves, spinal symptoms, etc.

In the *psychical status praesens* it is best to hold to the *scheme of the reflex arc:* conduction, central transformation and motor manifestation in the broadest sense.

As to the *sense perceptions* it is to be stated whether they occur normally, are retarded, imperfect or false *(illusions, hallucinations)* and in what way consciousness reacts to the stimuli perceived *(pleasure, aversion, excitement.)*

To be further stated is the patient's *frame of mind:* whether it is depressed, exalted, stable or unstable and readily influenced.

As to the *flow of ideas* its inhibition or facility (flight of ideas) is to be considered, as well as whether formal or qualitive disorders exist: *imperative conceptions, delusions,* anomalies of *memory,* whether logical thought is possible, or whether 'confusion' exists. The greater or less *clearness of consciousness,* the present or absent ability to *orient as to time and place,* the existing degree of clearness regarding the personality and the world is to be taken account of.

Mimetic action and conduct, the ability to *attend* or its quick exhaustion, the mode of manifestation of motor processes (psychomotor *inhibition, stupor* or *tendency to acts of violence, motor impulse, verbigeration*), condition of instinctive life (*appetite, sexual desire*) and the voluntary

acts arising from complex motives (*violation* of the penal code, *extravagance*, *absurd acts*, *suicidal tendency*, etc.,) are to be taken account of as *motor manifestations*.

Special attention is to be given to possible '*seizures*' of episodical events; often in complicated cases the differential diagnosis, *e. g.*, between hysteria and epilepsy, depend on observations as to the condition of the pupils, biting the tongue, enuresis and the degree of clouding of consciousness, which can only be made during the seizure.

After finishing the description of the mental condition, statements as to the *previous treatment*, effect of medicines, baths, possible employment of restraint (straight-jacket, seclusion, restraint) properly follow in the certificate.

In conclusion the majority of the list of questions provide for the statement of the opinion as to the *form* of the *disease*, the probable *termination*, *requirements* (physical,) as well as to the *danger to the community*.

The *diagnosis*, which may remain undecided in the hospital for a time, is less essential, when a good clinical history exists; the question of *curability* determines the commitment to the one or other category of institutions; hence caution is advised in expressing an opinion of incurability, it would be reprehensible to send a patient to a custodial institution owing to the possibility of being incurable.

The physician in writing up the certificate must ever bear in mind that he not only *best serves the patient's interests* by a careful and exhaustive description of the details of the mental disease, but also supplies the alienist with material for betterment of the knowledge of mental disorders, for this can be gotten in no other way. He who has this double point of view in mind will not many times begrudge the slight trouble of writing a good clinical history in psychical diseases.

DEGENERACY STIGMATA AS A BASIS OF MORBID SUSPICION.*

A STUDY OF BYRON AND SIR WALTER SCOTT.

By JAS. G. KIERNAN, M. D.,
CHICAGO.
Fellow of the Chicago Academy of Medicine; Foreign Associate Member French Medico-Psychological Association.

BYRON according to a prevalent opinion accepted by Haydon† had a morbid aversion to see women eat, which aversion, as Noel points out, has a simple explanation: At the time of marriage (a fact well known to Lady Byron) Byron was dieting. Necessarily irritated by seeing enjoyment of the pleasures of the table while his appetite must be resisted, it was difficult to assume to like what he disliked. Byron could not pretend to enjoy dinner and chat with his wife while longing for the meal's end. After the honeymoon Lady Byron generally breakfasted, lunched and dined alone, or had the solitude of her meals briefly broken by her husband. Another source of Byron's irritability toward his wife arose from his not unnatural dislike to be interrupted when writing. Lady Byron practiced interrupting him because she thought his dislike to interruption a mere whim. A business man would be extremely irritated by unnecessary interruption during correspondence, furthermore, such frivolous interruptions were obviously fatal to good literary work.

Despite his romantic jacobitism, Scott had the breadth

*Continued from the ALIENIST AND NEUROLOGIST, July, 1901.
†Life, Letters and Table Talk, Sans Souci Series.

to appreciate Byron's political independence. Byron's 'friend' Moore, had the snobbish limitations and pose of the Anglo-phobiac for revenue who so disgraces the Irish name in American politics. The supporter of the "green flag and an appropriation," cantingly liberal in 'Irish' matters is as fulsomely obsequious to the narrowest reaction in all else. In Byron's time these Irish "patriots" for revenue had the snobbishness castigated in the 'Irish Avatar,'

> Shout, drink, feast, and flatter. Oh Erin how low
> Wert thou sunk by misfortune and tyranny till
> Thy welcome of tyrants had plunged thee below
> The depth of thy deep in deeper gulf still.

No Irish adulator of George IV was more fulsome than Moore or more discourteous toward real Irishmen like O'Connell. This class of 'patriots' pre-eminently lacks that loyalty toward friends so honorable to the Irish. When John Scott headed the snobocracy in an attack on Byron which shamefully brought all Byron's affairs before the world, in an expression of, what Haydon deservedly stigmatizes as the basest spite and meanest feelings, Moore invited Scott to breakfast. To Rogers, Haydon and Walter Scott this seemed utterly despicable conduct. Moore was a biographer retained by Byron's publisher to re-dress, re-paint, and re-varnish the battered poet. In this capacity despite the request of Byron that if he died, "to do justice to a brother scribbler," Moore after a feeble protest permitted Murray to burn the memoirs thus pathetically committed to his care. Ecclesiastic orthodoxy and 'divine right' had joined hands. This 'patriot for revenue' disregarding all claims of friendship obsequiously bowed to the Guelphs, Hapsburghs, Romanoffs, Bourbons and that equally contemptible creature the British Philistine. Byron was as unfortunate in Moore as Dr. Johnson was lucky in Boswell.

Lady Byron, a poetaster, had the poetaster tendency to pester friends with her verse. This tendency displayed itself in a peculiarly objectionable type toward her husband's compositions which inevitably seemed rivals of hers. The poetaster being usually a philistine is the enemy of true

poetry. Lady Byron was mentally akin to the multitude who so unthinkingly enthused over Montgomery in that day and Tupper somewhat later. Interruptions during writing would therefore be peculiarly evidences of inane irritating comparisons. This was especially the case with Lady Byron, since she was the center of a band of mutual admiration poetasters, which included some genuine poets like Campbell. These belauded Lady Byron's rhymes above her husband's poetry.

Byron, for reasons connected with gastralgia, hepatalgia, and allied states arising partly from constitutional defect and partly from dietetic stress, became a laudanum user. Early in the last century opium was more generally employed in medicine than now. It had the place not only of the opium alkaloids and preparations but likewise the field of the hypnotics, anaesthetics, analgesics, antiperiodics and to some extent the field of cardiac tonics. The carefulness of physicians then about the use of laudanum led to Sir Walter Scott's metaphor: Law is like laudanum; it is easier to abuse it like a quack than to employ it like a physician. Laudanum-using in Byron's time hence had not the morbid significance of the present. It was employed in all classes of society particularly among the neuropaths now addicted to nostrums, Hahnemania and Christian Science. This misuse of laudanum was partly checked when medical agitation against it gave impetus to the movement of which De Quincey's *Confessions of an English Opium Eater* was the superficial nullifying expression. In American and English farming districts poppy infusions were favorite antimalarials at this time. Hysteric aristocrats and plutocrats used laudanum to relieve society strain as they now use massage, hypnotism, chloral, bromides, etc. Ill health in America and England was then a pose. Stigmata of degeneracy were evidences of aristocracy. Pallor an expression of degeneracy, anaemia or cachetic states was then a mark of aristocracy. One member of the Beecher* family failed to find among her numerous American acquaintances ten married women perfectly sound, healthy, vigorous. This

*Catherine Beecher: Letters on Health and Happiness, 1854.

state of things was due to the ill health pose of rural and urban middle class females. Lady Byron brought up among squirarchy females who rather coarsely call a spade a spade, was necessarily well acquainted with the morality of agricultural laborers then rather lower than that of the French peasantry depicted in *La Terre*, and as she knew all of Byron's paphian story in *Childe Harold*, the picture which Beecher-Stowe draws of her exceeding purity evinced in ignorance, is nauseous cant. The method in which Lady Byron circulated the hysteric incest delusion demonstrates innate hysteric pruriency multiplied by that of the "Mother in Israel" church gossip as numerous then among the squirarchy as to-day among "unco guid" people of rural and urban churches.

Byron's marriage could not be bettered for production of unhappiness. A calm, sly, prying, cooly remorseless, posing, pruriently prudish hysteric, united to a badly trained man of degenerate stock with suspicional tendencies due to personal deformity were about as well suited to abide in the same household as fire and gunpowder. The two people, according to Oliver Wendell Holmes' dictum, had chosen their ancestors and hence their environment badly. E. C. Spitzka, with a schoolman's reversionary logic claims that the degeneracy in the Byron family was largely due to the illegitimacy of John Byron of Clayton, the Elizabethan ancestor of the poet. This attempt to make legislative statutes biologic laws is akin to the folklore anent the eldest son which forms the basis of 'divine right.' The theory does not meet that scientific requirement under which a given hypothesis to be accepted as correct must not only explain all the facts but must also exclude all other explanation. Without giving a definition, E. C. Spitzka implies that illegitimates are persons born of relationships other than those justified by law. Law is of many types: custom or common law, canon or ecclesiastic law, regal or imperial decrees. These types conflict as to what constitutes legal union of the sexes. Early in mother-right, illegitimacy was impossible. One Australian tribe (according to Frazer*)

**Forthnightly Review*, April, 1899.

has no notion that mankind is propagated by the union of sexes. Indeed when the idea is suggested to the members of this tribe they steadfastly reject it. Their theory of the continuation of the species is that in certain far-off-times (to which they give the name of Alcheringa) their ancestors roamed about in bands, each consisting of members of the same totem group. Where they died, their spirits went into spiritual storehouses in the earth, the external mark of which was a stone or tree. Such spots are scattered all over the country. Ancestral spirits who haunt them are ever waiting for a favorable opportunity to be born again into the world. When one of them sees his chance he pounces out on a passing girl or woman and enters into her. Then she conceives, and in due time gives birth to a child, who is firmly believed to be a reincarnation of the spirit that darted into the mother from the rock or tree. It matters not whether a woman be young or old, matron or maid—all are alike liable to be thus impregnated by the spirit. It has been shrewdly observed by the natives that the spirits on the whole exhibit a preference for such as are young and fat. Accordingly when a plump damsel who shrinks from the burden of maternity is obliged to pass from one of the spots where the disembodied spirits are supposed to lurk, she disguises herself as a withered old hag and hobbles, bent up double, leaning on a stick, wrinkling her smooth young face, and mumbling in a cracked, wheezy voice, "Don't come to me; I am an old woman." In the opinion of the tribe every conception is 'immaculate' brought about by the entrance into the mother of a spirit, apart from any contact with the other sex.

Another phase of the same belief is found in Annam,* where the spirits of children still-born or dying in infancy are held in great fear. These spirits, called Con Lon (from *lon*, "to enter into life"), are ever seeking to incorporate themselves in the bodies of others, though after so doing they are incapable of life. Their names are not mentioned in the presence of women, lest they take to these. Newly-

*Childhood in Folklore and Folk Thought.

married women are afraid to take anything from, or wear clothing of a woman who has had such a child.

Under such a state of culture no condition approximating illegitimacy could have occurred. Mankind for this reason long remained under modified conceptions of mother-right. In Egypt at its highest phase of culture, mother-right was a fundamental basis of the law of descent. Fatherhood occurred at a comparatively late phase of evolution. That it was of fetichic or ecclesiastic origin rather than the result of observation the phases of the couvade denote. This custom obtained late in European culture and still persists in various modifications. Under it the child's life immediately after birth is bound to that of the father by mystic connections which compel him to cease from ordinary occupations and go to bed.

That such conflicting elements should ultimately co-operate in making illegitimacy act with the unerring certainty of biologic law is obviously impossible. Were illegitimacy a biologic fact it must affect progeny irrespective of environment, and must endow persecutory statutes with omniscient infallibility. In Ireland even late in the nineteenth century marriages between Protestant and Catholic performed by a Catholic priest, or marriages between a Presbyterian and Episcopalian performed by a Presbyterian clergyman, or other marriages between Protestant sectarians and Episcopalians performed by non-Episcopalian clergyman were void and the offspring illegitimate. From the revocation of the Edict of Nantes until the French Revolution, every marriage between Protestants performed by a Protestant minister was void and the offspring illegitimate. There is not the slightest evidence to show that illegitimacy thus produced, was by itself in the minutest degree prejudicial to offspring. People who conscientiously adhere to their own ceremonies in marriage are most likely to furnish favorable environment for their offspring.

Illegitimacy furthermore is often a mere expression of latitude or statute making frenzy. Byron's Elizabethan ancestor born under the same conditions north of the Tweed would have been indisputably legitimate. The Tudor de-

scendents of John of Gaunt were or were not legitimate as parliamentary statutes legitimatized or bastardized the offspring of Catherine Swynford. The children of Henry VIII were or were not legitimate according to the point of view. Mary was legitimate according to a papal decision but illegitimate according to canon and English law as the offspring of a brother by the wife of a deceased brother. Elizabeth, except by the common law or betrothal marriage, was likewise illegitimate; Edward VI was illegitimate by English statute albeit not by papal bull. Such variability of standards never occurs under biologic law.

Furthermore, the fact that in numerous, nay as Spitzka* puts it, countless instances, the illegitimate have proven superior to the legitimate, demonstrates that illegitimacy is a very minor biologic factor while superior maternity and environment is all important. Legitimacy or illegitimacy are of influence only so far as they affect the offspring during the periods of stress. Illegitimacy will likely furnish an unfavorable environment during these periods hence its influence on degeneracy. To this alone are all its alleged biologic consequences reducible.

When Byron departed for the continent he was under serious financial stress which at the time of his marriage was increased by an exasperating lawsuit for the recovery of entailed property illegally sold by his predecessor, yet as Noel shows there is no reason for assuming that his marriage was prompted by monetary considerations, since the success of *Childe Harold* made him the cynosure of heiresses. The memoirs burnt by order of Murray gave good reasons for acts charged to morbid mentality and morality. Murray was a philistine fearful of enemies in philistinish circles. His appreciation of Byron's poetry was due to its value as a money getter. Byron brought him $375,000, hence he was a great poet. Murray especially fearful of the attacks on the Prince Regent and praise of Washington, attempted to censor Byron's poems, who with all his defects was of too sturdy stuff to yield to such caddishness.

Sir Walter Scott had remonstrated with Byron as to

*ALIENIST AND NEUROLOGIST, 1899, P. 637.

the injustice done in *English Bards and Scotch Reviewers* which remonstrance ended in a meeting and cordial, permanent friendship. Scott's opinion of Byron is like most of Scott's psychologic judgments keen and clear-sighted. He firmly recognized the suspicion generating effect of personal deformity. Anent the 'Black Dwarf' Scott remarks: "The ideal being who is here presented as residing in solitude, haunted by a consciousness of his own deformity and a suspicion of his being generally subject to the scorn of his fellow-men, is not altogether imaginary." Naturally therefore, Scott recognized the suspicional elements in Byron and adjusted himself accordingly. The *Black Dwarf* contains much suggestive of the history of the Byron family especially of the Chaworth homicide. While Scott ascribes other factors still the Chaworth homicide is strongly suggested in the Black Dwarf. "Byron," Scott remarks, "was often melancholy almost gloomy. I also remarked in his temper, starts of suspicion, when he seemed to pause and consider whether there had not been a secret and perhaps offensive meaning in something that was said to him. In this case I also judged it best to let his mind, like a troubled spring work itself clear which it did in a minute or two. What I liked about him was his generosity of spirit as well as purpose and utter contempt of all the affectation of literature. He liked Moore and me because with all our other differences we were both good natured fellows enjoying the *mot pour rire*."

Byron exhibited greater consideration for cripples than cripples usually do. Aside from that of epileptics invalidism intensifies egotism. The care and attention bestowed on an invalid renders him envious and jealous of his fellow invalids. Deep seated altruism is needed to overcome moral deterioration produced by illness. Harness, Byron's friend, throughout life had been protected by him at Harrow. The two boys, fond of poetry and romance, had warm affectionate dispositions, were devoted to study, and were lame. Harness when an infant was playing about some curious carving on bedstead posts tied together. The heavy mass fell with crushing weight upon his foot. He never entirely

recovered from this accident and he always felt a slight pain in walking; but such was his spirit and perseverance that in after-life he became a good pedestrian*. Harness a clergyman of the English church retained his friendship for Byron. Byron's peculiarities on Harness' opinion were due to weakness for dramatic effect and excitement and a tendency to indulge in fantastic rhapsodies replete with tragic extravagance. Except this love of an ill name, this tendency to malign self—this hypocrisy in reverse no evil act for evil disposjtion of Lord Byron was known to Harness. From Byron's lack of proper refuge during childhood and youth came in no small degrees his mental peculiarities. Formation of associations in the child is necessarily attended with a large element of the unknown, causing uncertainty and hence psychic pain because of the efforts required. Thus results a mental state which if not carefully watched and corrected during the period of the second dentition, puberty and adolescence forms the basis of sentimentalism and pessimism. From this comes 'world-weariness' so often present during adolescence. To this world weariness is due the Byronic literature which Walt Whitman calls the poetry of woe. This is comparatively normal in adolescence and arises from the mental instability due to the contest for existence between the reproductive and central nervous systems. It has the same psychologic basis as the suspicional tendencies and pessimism with which it is so often associated. Suspicional tendencies arise from states of anxiety resultant on instability of association dependent on lack or non-use of associating fibres. Pessimism as Magalhaes† points out is nervous instability with alternations of irritability and prostration. The subject is supersensitive. Impressions called forth being intense cause prolonged reactions and are followed by exhaustion. There is a general hyperaesthesia, which naturally results in an excess of suffering. From instability and hyperaesthesia discord results between the feelings themselves, between the feelings and the intelligence, between the feelings, the

*Harness Reminiscences Bric-a-Brac Series.
†*American Psychological Journal* 1893.

ideas and volitions. Discord between the feelings is evinced in paradoxes, contradictions and inconsistencies. To the pessimist, possession of a desired object does not atone for former privation. Pain or unsatisfied desire is replaced by the pain of ennui. With inability to enjoy what the pessimist has are coupled extravagant expectations regarding that which he does not have. He is extremely susceptible to kindness and contempt. He passes suddenly from irritability to languor, from self confidence and vanity to extreme self abasement. This intense sensitiveness results in intellectual instability as it involves a great vivacity of the intuitive imagination that favors the setting up of extravagant ideals lacking solid representative elements. A gap results between ideal and the actual. The pessimist can never realize the idea he pursues and so his feelings are sombre. This excessive realism produces doubt and distrust of all rational objective knowledge expressed in occult fears and belief or sometimes in extreme subjectivism. The pessimist is haunted by the tiniest religious scruples, suspicions, fears and anxieties, resulting in alienation from friends, seclusion, misanthropy. He has incapacity for prolonged attention, a refractory attention and a feeble will. From these comes inaction, quietism, self-abnegation, abolition of the personality, annihilation of the will amounting sometimes even to poetic or religious ecstasy. Pessimism is frequently associated with thanatophobia (morbid fear of death.) While these features somewhat tinged Byron's mentality they were more marked in the Spanish poet, Quevedo. He was short sighted and lame and deformed in one leg. Despite his uncouth figure and short sight he was a skillful fencer, and at Alcala University gained a high reputation in civil and canon law, theology, medicine, French, Italian, Latin, Greek and Hebrew. As in many Spaniards religiosity alternated with debauchery. Despite the mark he offered himself he was very severe on the peculiarities of others.* His invalidistic egotism contrasts with the altruism which Harness and Byron displayed toward fellow sufferers. This altruism cropped out in

*Spanish Literature: Clare.

Harness' annotated edition of Shakespere: "It would appear," Harness remarks, "that the class of characters to which the histrionic exertions of Shakespere were confined was that of elderly persons, parts rather of declamation than of passion. With a countenance which if any of his pictures really resembles him, we may adduce that one as our authority for esteeming him capable of every variety of expression with a knowledge of the art which rendered him fit to be the teacher of the first actors of his day and to instruct Joseph Taylor in the character of Hamlet and John Lowine in that of Henry VIII. With such admirable qualifications for pre-eminence nothing but some personal defect could have induced Shakespere to limit the exercise of his powers and even in youth assume the slow and deliberate motion which is the characteristic of old age. In his minor poems may be traced the origin of this direction of his talents. Two places in the Sonnets indicate that he was lamed by some accident. In the 37th Sonnet he writes:

"So I made lame by Fortune's dearest spite."

And in the 89th he says:

"Speak of my lameness, and I straight will halt."

This imperfection necessarily rendered him unfit to appear as the representative of any character of youthful ardor, in which rapidity of movement or violence of exertion was demanded and would oblige him to apply his powers to such parts as were compatible with his measured and impeded action. Malone inefficiently attempting to explain away the palpable meaning of the above lines adds: 'If Shakespere was in truth lame he had it not in his power, to halt occasionally for this or any other purpose, the defect must have been fixed and permanent.' Not so. Surely many an infirmity of the kind may be skilfully concealed or only become visible in the moments of hurried movements. Either Sir Walter Scott or Lord Byron might without any impropriety have written the verses in question; they would have been applicable to either of them. Indeed the lameness of Lord Byron was exactly

such as Shakespere's might have been, and I remember, as a boy that he selected those speeches for declamation which would not constrain him to the use of such exertions as might obtrude the defect of his person into notice."

The testimony as to Byron's delinquencies in Venice seems particularly strong, especially his own admissions. Byron, however, continually exaggerated the worst side of his feelings. Any alleged delinquency of a poet resident in Venice moreover must be taken with enormous allowance. The gondoliers are naturally for business reasons a very gossipy set. During a visit to Venice in 1900 I was considerably amused at a tale narrated in front of the palace where Robert Browning died which described at great detail Browning's alleged differences with his wife. These, according to the gondolier, were the scandal and amusement of Venice and Byron was nowhere as to the number in, and the character of his harem, as compared with Browning. The tale however was a pure myth. The relations of the poet and Mrs. Browning were notoriously ideal. Mrs. Browning had died ere the alleged Venice transgressions. Browning himself died ere they became public notoriety. The fact was that another Browning had been identified with the poet. His delinquencies and the marital feuds of the poet's son were mingled and foisted upon the poet,

"To point a moral and adorn a tale"

for the benefit of the gondolier. The tendency of tourists to exchange reminiscences with the gondolier formed an English addition to the Venetian stories anent Byron. Unconsciously rising above current literary philistinism Byron through early training was nevertheless strongly biased by it. "Think," Miss Mitford* remarks, hitting at this blot on Byron, "of the crying down of Keats, Milton, Shakespere, Wordsworth, the crying up of Moore's frippery songs and Dr. Johnson's heavy criticisms." In this Byron, like Sir Walter Scott, was swamped by that training in classical literature which he decried. Johnson was the *beau ideal* of the tutors whom Byron assailed. He was

*Letter to Haydon Op. Cit. P. 216.

then as now the literary dictator of the pedagogic intellect. He denounced Shakespere and Milton as bitterly as he did American "rebels" in that silly turgidity "Taxation no Tyranny." His denunciation of Shakespere pleased paranoiac degenerates like George III as well as philistines who then as now hated play-going, ostensibly for "moral reasons," really for parsimonious. Johnson, an abulic thanatophobiac degenerate as E. C. Spitzka has shown,* mediocre in intellect naturally dominated the society of the day and from his misoneism the pedagogic intellects of the schools today.

Unlike Byron who did not dwell on the continuance of of his family, Scott's great ambition was to found a branch of the Scotts whose social status should be as high as that of the Dukes of Buccleuch, the head of the Scott family. This ambition was defeated not by Scott's genius but by his marriage. Scott like Byron married a neurotic woman of the amiable, loving type which is so fascinating. She had a thoroughly kindly nature, loved Scott, sunned herself in his prosperity and tried to bear his adversity cheerfully. The marriage was a romantic one. Lord Downshire introduced to her father by Dean Burd fell in love with her mother and eloped. Her father dispatched Mrs. Scott and her brother to the mother never noticing any of the three thereafter. On the death of the mother Mrs. Scott was sent to a convent school. When her education was finished she was placed under a duenna which did not prevent her from falling in love with what in Downshire's opinion was a "detrimental." He asked Dean Burd to find some place where this troublesome charge could be placed. Ere the Dean had replied and just ere his wife and he had set off to a spa for the wife's health, the young ladies arrived. While on their way to the spa a young Scotch lawyer traveling on horseback happening to sit next to the Dean's party at dinner fell deeply in love with Miss Carpenter. He so conciliated the Burds that they invited him to their country home. Matters soon reached a point where Lord Downshire had to be told. Inquiries proved satisfac-

Journal of Nervous and Mental Disease 1881.

tory. Downshire was thankful to be so respectably rid of his troublesome charge who thus found the kindest of husbands in Walter Scott. Mrs. Scott was not devoid of spirit and self-control. When Mr. Jeffrey (having reviewed Marmion in the *Edinburgh Review* in the depreciating omniscient tone then considered an evidence of critical acumen) dined with Scott on the day on which the *Review* appeared, Mrs. Scott behaved through the whole evening with the greatest politeness but fired a parting shot in her broken English as he took leave, "Well, good night Mr. Jeffrey, dey tell me, you have abused Scott in de *Review*, and I hope Mr. Constable has paid you very well for writing it." In her last illness she reproached her husband and children for their melancholy faces even when that melancholy was, as well she knew, due to the approaching shadow of her own death. The feeble frame of Lady Scott shattered Scott's ambition to found a family. He had two sons and two daughters. The former died as young men, childless. The older daughter Anne, laboring for years under a "miserably shattered constitution looking and speaking like one taking the measure of an unmade grave" finally succumbed to brain fever. Sophia, the younger, who became Mrs. Lockhart, died like her sister in what ought to have been the prime of womanhood after a long illness which she bore with meekness and fortitude. Mrs. Lockhart left two children, Walter and Charlotte. The former died young without issue; Charlotte who became Mrs. Hope succeeded to Sir Walter's estate at Abbotsford but of her three children only a daughter survived the period of childhood.

The marriages of Scott, Byron, and Shakespere explain why genius so seldom leaves posterity. Scott like Shakespere was ambitious of founding a family. While Scott and Shakespere were alike in literary business capacity, Scott, tainted by the speculative tendencies of the early nineteenth century, attempted to enlarge his already large income by becoming a publisher. He showed striking lack of executive ability in his choice of subordinates for important positions. His dictatorial tendencies overcame his foresight

and he placed incapable submissive sycophants in executive positions. Byron, like Shakespere, exhibited a greater sense of his business limitations in confining himself to literature. Had Scott done the same, the world might have been saved the pathos of his break down and his family might have survived under a less trying environment. Shakespere, profiting by his father's bankruptcy, avoided errors which led to it.

The trying marital environment of Shakespere seems probable from the circumstances of his marriage and seeming evidence in the Sonnets. According to Nisbet Anne Hathaway belonging to a prolific family could not have unfavorably influenced the Shakespere race. The marriage of a rather mature woman to an eighteen-year-old boy, eight years her junior, indicates, as I pointed out a decade ago, neurosis in her.* The bond drawn to free the bishop of liability for Shakespere's marriage differs markedly from those drawn where either party was under age. These invariably provide that marriage shall not occur without consent of the parents or guardians of both parties. In the case of an infant bridegroom formal consent was essential to strictly regular procedure. Complacent clergymen were however ready to marry an infant without inquiry. The clergyman who married Shakespere and Anne Hathaway was obviously one of this kind. Although Anne was of age and William nearly three years a minor, the bond stipulated for consent of the bride's friends and ignored the bridegroom's. In pre-matrimonial covenants either the bridegroom or his father figures as a surety first. The sole sureties however in the Shakespere bond are farmers of Shottery where Anne was born and one of them was a supervisor of Anne's father's will. The prominence of the Shottery men in the bond indicates that they secured the deed so that Shakespere had no excuse for evading a step which his intimacy with Anne had rendered essential to her reputation. The wedding probably took place without consent of the bridegroom's parents soon after the signing of the bond. Within six months a daughter was born to the poet. It is prob-

*Alienist and Neurologist, 1892.

able that the bride rather than the groom was the seducer. Such seductions are exceedingly frequent among the rural classes of Europe. Thomas Hardy, a good authority on English rurality, introduces such a seduction into *Jude the Obscure* as an essential part of the plot. Medical jurisprudence has noted facts indicating the frequent occurrence of such seductions. Although as Sidney Lee* remarks it is dangerous to read into Shakespere's dramatic utterances personal references still the emphasis with which he insists that a woman should take in marriage "an elder than herself" and that the prenuptial embrace is "productive of barren hate, sour ey'd disdain and discord" suggests a personal interpretation. Despite everything Shakespere's marriage was as happy as such marriages could be expected to be. Anne's name was omitted from the original draft of Shakespere's will. By a later interlineation she receives his second best bed with his furniture, but no other bequest. The second best bed is that usually occupied by the heads of the household. There would be very tender associations with it and a desire for it would be natural in Anne. She clearly had great tenderness for Shakespere for at her own request she was buried in his grave. Coeval wills bequeath furniture to a wife but in Shakespere's alone does a bed form the sole bequest. The precision of Shakespere's will anent every item of his property shows that he had not set aside any of it with a view to independent provision for his wife. Her dower right was not subject to testamentary disposition, yet Shakespere had taken steps to prevent her from benefiting to the full extent. He had barred her dower in his last purchase of real estate. However plausible the theory that his relations with her were wanting in sympathy, still it seems improbable that either the slender mention of her in the will or the barring of her dower was designed to make public indifference or dislike. Her ignorance of affairs and the infirmities of age (she was past sixty) combined to unfit her for control of property. As an act of ordinary prudence Shakespere† probably committed her to the care of his elder

*Sidney Lee Life of Shakespere.
†Sidney Lee Life of Shakespere

daughter who inherited his shrewdness and had a capable advisor in her husband, Dr. Hall. As Anne Shakespere remained on good terms with her daughters and much in love with her dead husband it is obvious that she was not pained by the will.

Shakespere's only son Hamnet died at twelve. The nuptials of his second daughter Judith were similar to those of her father and mother. The ceremony took place without banns and before license was procured. This irregularity led to bride and groom being fined by the ecclesiastical court. The marriage did not interfere with the father's bequest to Judith. The signature of Judith's husband (Thomas Quincey) to the will indicates according to Nisbet* an egotistic coxcomb. Judith's three sons died early; Shakespere at one year; Richard at twenty-one and Thomas at eighteen. Susannah (the eldest and ablest of Shakespere's children) had one daughter who was twice married but remained childless.

Ada Lovelace (Byron's daughter) evinced nervous defect natural to her maternal ancestry;‡ she suffered from vertiginous states and died at thirty-seven. She left a son who mixed little with people of his own rank but served as a common seaman and then worked for some time as a ship carpenter. Byron's Venetian life was probably an expression of mental and physical overstrain. He suffered from malaria and its nervous results to a marked degree. Although, as I have already pointed out, Venetian testimony anent foreigners of celebrity is very unreliable, still the following picture of Jeafferson is not too much shaded: Byron's "harem on the Grand Canal, to which he gathered frail women from the homes of artisans and the cabins of suburban peasants was fruitful of scandals. Little or nothing, however was heard in England of the degree to which the poet now succumbed to the appetites of the glutton and the sot. In the increasing violence of his temper, ever too fervid, in the alteration of his voice, once so clear and musical that children turned from their play for the delight

*Op. Cib.
‡Nisbet: Insanity of Genius.

of listening to it and in his penmanship always indicative of irritability and now growing so illegible that it troubled compositors was evident nervous distress. At night he would roll in agony through long assaults of dyspepsia, more often lie in melancholy moodiness or endure the torture of afflicting hallucination. To Byron with a nervous idiosyncrasy that rendered him peculiarly sensitive and impatient of physical discomfort, the pain of these spasmodic seizures was almost maddening torment. The mental anguish that came to him from dreams was no less acute."

From this condition Byron soon awakened partly through the influence of the Countess Guiccioli. He formed with her a relationship recognized by Italian usages which is very probably a survival of fraternal polyandry. Italy has been the meeting place of Eurafrican, Eurasiatic, Primitive Aryan, and prehistoric races as Sergi* has shown. Survivals of folklore and folk customs of primitive types hence occur. Formerly a Florentine girl of good family† could by a clause in the nuptial contract claim her right to take a lover whenever it should please her so to do. The Aleutian girls (fair representatives of a prehistoric Italian race) enjoy during spinsterhood, sexual liberty of which they make free use and reserve at their espousals the right of a cicisbeo. Their "adjutant" (the technical title) assists the master of the house in all rights, duties and liabilities, active and passive. He contributes to the maintenance of the household and the support of the children. Women so very much married are considered extremely fortunate and enjoy a profound respect. The assistant's presence is indispensible during the husband's absence who, on his return patronizes and protects the young man and receives from him the deference which a younger brother pays an elder one. This cicisbeat is a survival, as Réclus points out, of family or group marriage. Among the allied Thlinkets and Koloshes the *cavalier serviente* must be a husband's brother or near relation. A Konyago caught in adultery must pay the husband. If he be a member of his family the husband may compel him to obey his orders and those of the

*The Mediterranean Race.
†Cecius: Primitive Folk p. 66.

wife with whom henceforth the association is legitmate. On the death of a Thlinket the younger brother marries the widow and the new captain requires in his lesser functions the good offices of the third brother. Here is the key of the cicisbeat. The cicisbeo is a "levir;" his function is a survival of fraternal polyandry.

With this survival Byron had become familiar during his relations with Italian women of the shop-keeping class. He had had a cicisbeo experience with the wife of a draper at once devout and lascivious and had thus become acquainted with the complacence of Italian husbands for suitable monetary consideration. He was to make their acquaintance anew in a higher grade of society. The Countess Guiccioli (née Gamba) had been sold at fifteen for family necessities to a man of sixty, young enough to desire a third wife, who had some culture, a good estate and sordid nature. Theresa Gamba fairly read in Italian had also some knowledge of French literature. Too short (especially in the legs) for elegance and too massive everywhere for grace, there was visible in the contour of her cheeks and lower jaw, in her large neck, fair shoulders, white bosom and showy arms, an almost matronly attractiveness. While deficient in the girlish shapeliness so admirable to youth, her clear fresh complexion, her naive countenance prodigal alike of smiles and blushes, her large blue eyes veiled with long dark brown lashes, ample white eyelids, high eyebrows with arches finely penciled with umber, dainty lips, pretty teeth, a coy chin and somewhat too high forehead were charms peculiarly delightful to veterans in pleasure especially when surmounted by hair fine as cobweb and glossy as satin that fell in unconstrained golden curls to her shoulders.* She was an adept at the ill health pose to rouse sympathy so characteristic of the woman of the first half of the nineteenth century. She could bring on paralysis, haemoptysis and even catalepsy. For months the Palazzo Guiccioli was the scene of a comedy the actors in which were the young countess dying of consumption, intermittent fever, nervous seizures and

*Jeafferson Op. Cit.

love; the poet acting as physician, the covetous elderly count nursing a purpose of extorting a heavy fee from the physician. Byron studied medicine but wrote to Dr. Aglietti for his opinion, who fully understanding the circumstances approved of Byron's view of the case and treatment. Byron despite his previous experience failed to understand the limitations of the cicisbeat and urged the Countess to fly with him. His pleadings drew from her the passionate avowal that while willing to gratify him in every other way she could not take a step that would clothe her with perpetual ignominy. If the career of the Countess Guiccioli could be closed with honor she would consent to anything he desired for his happiness. The woman who had feigned consumption and catalepsy was ready to feign death and be committed in shroud and coffin to the terrors of the charnel-house in order to destroy her identity with her husband's wife. The death feigning plan was clearly derived from Boccaccio*; one of whose tales has a similar plot based on ante-mortem burial.

However with her husband's consent she left for Venice with her lover. Defying Italian covenances, Byron settled with her under the same roof. Here the Count sent a letter begging her to get Byron to lend him $5,000. Byron though liberal and generous had a natural objection to being thus swindled. The Count thereupon insisted on Theresa going back to Ravenna with him. Venetian society scandalized at Theresa dwelling under her lover's roof made Byron feel that he was compromising her and he persuaded her to go with her husband. Soon after arrival the ill health pose impelled husband, father and uncle to invite Byron to join them at Ravenna. Byron had been on the point of returning to England. Many things beside his passion for Theresa made him hesitate. She had nursed him just ere her departure through a malarial fever in the delirium of which he had written verses. In a man of his psychologic make-up, irresolution was naturally a marked trait. So he joined the family at Ravenna.

*Decameron Third Day Novel VIII.

Here her family* actually organized a great gathering of three hundred of the best people in Romagna with music and dancing to do him honor. The lover at the husband's invitation took a suit of rooms in the Palazzo Guiccioli for which he paid a good rent.

Count Guiccioli endeavored to obtain a divorce. His condonation of Byron's relations with his wife was too notorious for any court to act. The Count however was able to stir up the authorities against Byron and the couple were forced to leave for Genoa. Here Byron embraced with enthusiasm the Grecian cause and sailed for Greece accompanied by Theresa's brother. During his leadership of the Greeks Byron showed rare executive ability in managing that most capricious and treacherous of people. At Mesolonghi, a fever bed situated on a muddy swamp, Byron was attacked by malignant malaria which caused his death. Repeated bleedings had some effect in lowering vitality, yet they were somewhat justified as Byron had the degenerate tendency to grave nervous symptoms from slight causes. Had he lived it is exceedingly probable that he would have organized Greece much better than either the Bavarian House or Danish House was able to do. His sudden death is a contrast with that of Scott who fought out a long literary battle against bankruptcy with a brain half deadened by apoplexy.

*Noel: Op. Cit.

JUVENILE FEMALE DELINQUENTS.

By EUGENE S. TALBOT, M. D.,

Fellow of the Chicago Academy of Medicine; Professor of Oral Surgery Woman's Medical Department Northwestern University.

WOMEN, as Havelock Ellis* remarks, are everywhere less criminal than men. The proportion varies greatly. In France it is usually about four to one; in the United States it is about twelve to one; in Italy and Spain the proportion of women is very small. In Great Britain the proportion of criminal women is extremely large especially for the more anti-social crimes. There has been a steady increase in the proportion of women criminals in England. In 1834 they were less than one in five; but of recent years more than one in four. The greater tendency to recidivation in women everywhere noted, is extremely well marked in England where it is rapidly increasing and is associated with growing habits of alcoholism. Of incorrigible recidivists a very large proportion in Great Britain are women; forty per cent of the women committed to prison have been previously committed more than ten times. Among juvenile offenders discharged from reformatory and industrial schools as incorrigible the proportion of girls is double that of boys.

Certain crimes both sexes commit about equally. These are usually the most serious. Thus, according to Quetelet nearly as many women are poisoners as men and of parricides fifty per cent are women. The crimes of women are essentially domestic--against fathers, husbands and children. A very large proportion are directly or in-

*The Criminal p. 214.

directly of a sexual character. Marro finds marked physical resemblance between women criminals generally and male criminals guilty of sexual offences; such have lesser length of arms and hands, less cranial capacity and greater extension of the transverse curve.

There are five probable causes for sexual variation in criminality especially acting on women: First, physical weakness; Second, sexual selection; Third, domestic seclusion; Fourth, prostitution; Fifth, maternity. There are firstly the physical and psychic traditions of the race embodied in the organization of men and women. The extreme but rather spasmodic energy of men favors outbursts of violence while the activities of women are at a lower but more even level. Their avocations have tended to develop the conservative rather than the destructive instincts. Apart from this, even if women were trained in violence, the superior strength of men would still make crimes of violence in women very hazardous and dangerous. Under the existing circumstances when a woman wants a crime committed she can usually find a man to do it for her.

Sexual selection as Marro* suggests has exerted a marked influence in diminishing the criminality of women. Masculine, unsexed, ugly, abnormal women, the ones most strongly marked with the signs of degeneration, have the tendency to criminality and hence to a large extent passed by in the choice of a mate, would tend to be eliminated. Domestic seclusion of women is, according to Ellis, an undoubted factor in the determination of the amount of woman's criminality. In the Baltic or Teuto-Slavonic provinces of Russia, where women share the occupations of men, the level of feminine criminality is very high. In Spain the most backward of the large countries of Europe, where the education of women is at a very low level and women lead a very domesticated life, the level of feminine criminality is extremely low. The same is true to a less extent of Italy. In England which has taken the lead in enlarging the sphere of woman's work, the level of femin-

*La Puberta.

ine criminality has for half a century been rising. There is much more criminality among Irishwomen in England than among Irishwomen at home who lead a more domestic life. Women criminals according to Marro, in marked contrast to men, had in a very large proportion (thirty-five out of forty-one) more or less honorable occupations. A large proportion of the women are possessed of some property.

The separation of crime from prostitution exerts an undoubted influence is diminishing woman criminality. If it were not for prostitution there would be no alternative but crime for the large number of women who are always falling out of the social ranks. In those families in which the brothers become criminals the sisters with considerable regularity join the less outcast class of prostitutes, sometimes in league with their criminal brothers but yet possessing a more recognized means of livelihood.

The strongest warrior against criminality in women is maternity. The proportion of criminals among young women with children is very small. Among men criminals celibates are in a very large majority, but among women maternity acts as a still greater deterrent. Not only are young married women comparatively free from crime but among married women, as Bertillion has shown, those with children are distinctly less criminal than those without. Of forty-one criminal women Marro found all but one (who was undeveloped and ugly) had had sexual relationship; twelve had never been married; ten were widows, fourteen were married, but of these seven (fifty per cent) were separated from their husbands. While in men the maximum of criminality falls at about the age of twenty-five, in women this is not so. While maternity has this beneficial influence, precocious and random sexual relationships have an equally grave influence in the opposite direction. The age of maximum child-bearing, the age of maximum criminality in women is delayed until nearly the age of thirty-five. In one hundred and thirty women condemned for premeditated murder studied by Salsotto, the average age was thirty-four. Marro found that for nearly every class of criminals

the average age of the women was much higher than that of the men. Woman without children is heavily handicapped in the race of life. The stress that is upon her is written, largely in these facts concerning criminality. Crime simply signifies the extreme anti-social instincts of human beings. A life led most closely in harmony with the social ends of existence must hence be the most free from crime.

The prostitute, in my opinion as I have elsewhere stated,* is a parasite in whom crime has taken the line of resistance, hence in estimating female crime prostitution should be added to female criminality. The prostitute as a rule corresponds to the confidence operator of the beggar or tramp type. To a certain extent this view dominates Lombroso, who assigns as a reason for the comparative rarity of the criminal type in women the fact that they are congenitally less inclined to crime than men. Primitive woman and still more civilized women are less ferocious than men. The occasional criminal is most frequent among women. As occasional criminals have no special physiognomy they present no type characteristics. This is all the more evident since even when a born offender woman's offences require an attractive appearance and prohibit the development of repulsive facial states. Primitive woman, according to Lombroso, was rarely a homicide but was almost always a prostitute and such she remained until semi-civilized epochs. This is why prostitutes exhibit more retrogressive characteristics than are to be observed in the female delinquent. The female criminal is an occasional criminal presenting new stigmata of degeneration but tending to multiply in proprotion to her opportunities, while the prostitute has a greater atavistic resemblance to her primitive ancestor, the woman of pleasure. In short the female criminal is of less typic aspects than the male because she deviates to a less degree from the type and finally because beauty being for her an absolute necessity in the struggle for existance resists degeneracy.

The factors interfering with the development of the

*Degeneracy, its Causes, Signs and Results.
II Donna Delinquente.

criminal type in woman are but faintly outlined by either Havelock Ellis, or Lombroso. Woman from her construction is essentially much more altruistic than man. She is developed physically to secure care for another being for whose benefit she furnishes nutriment at her expense for years. This altruism has begun very early in the scale of evolution since it appears even in the fish at times, the reptiles, more frequently, the birds and oviparous mammals still more frequently and the mammals, including women, most frequently of all. Indeed the term mammal implies altruism. For this reason of which maternity is the expression, woman is guarded against deterioration of the secondary *ego* to a greater extent than man.

Another factor which aids that just mentioned is the fact generally ignored but logically cited by Lombroso that women are not only longer lived than man but have greater powers of resistance to misfortune and grief. As G. F. Shrady* remarked nearly a decade ago, while woman has been deprived of so many rights, she has the advantage of man as regards longevity. She suffers less from accidents, injuries and many forms of disease and is in fact more tenacious than man of the limited enjoyments allowed her. As Dr. Brandreth Symonds† has shown in the first year of life the mortality of the female is much less than that of the male, being at birth 92.64 per one thousand as against 112.80 and at the end of the year 31.88 as against 35.08. This difference continues up to the fourth year. From five to twelve the female mortality is greater than that of the male, being at the latter period 3.56 for males and 4.28 for females. At the age of 46 the male mortality equals that of the female, the latter having been up to this time slightly in excess. During the years forty-six to fifty-six, the period of the climacteric, the male mortality gains rapidly on the female, being 6.32 per annum for the one and only 3.47 for the other. Hence the climacteric is really a much more serious time for man than for woman. After fifty-six the female mortality gains on that of the male,

Medical Record, Vol. XXXV.
†*American Journal of Medical Science*, May 1894.

but is always slightly below it. Woman has not only a less mortality but a greater longevity than man. There is also a plurality of female births. In the case of the female criminal, remarks Lombroso, these conditions seem almost exaggerated so remarkable is her longevity and the toughness with which she endures the prolonged hardships of even Italian and Russian prison life.

Prostitutes are supposed, as Lombroso remarks, to die of phthisis or syphilis in early youth yet the weight of evidence is that many have iron constitutions, that their abject trade does not exhaust them and that they can resist anything.

(*To be continued.*)

THE LEGAL DISABILITIES OF NATURAL CHILDREN JUSTIFIED BIOLOGICALLY AND HISTORICALLY.*

By E. C. SPITZKA, M. D.,
NEW YORK.

102 One need not be surprised in view of the confusion into which the "*uome delinquente*" disciples have brought forensic psychology, to find not alone legal but even historical writers, like Scherr, reluctant to accept its legitimate conclusions anent certain criminals of history. All the more does it seem surprising to find the latter volunteer the suggestion of a pathological condition as explanation mitigating the deeds of a Messalina, Joan of Naples, Catharine II of Russia and Isabella of Spain. It is true he may find support in the Psychopathology of Kraft-Ebing who, if correct in classifying the rigid in one category of the aberrant (about one-third of the females of this Indo-European race), is justified in providing another category (including about one-tenth of the Indo-European, and from that to fully a third of certain other races) for those of tropical ardor. I prefer to consider both as strictly within physiological domains and their modifications due partly to civilization. The *mulier frigida* is the product of inhibition—"inertia of disuse," if you will—transmitted from generation to generation and intensified in transmission to a suppression of the instinctive. Her extreme antithesis owes her character to the lack of these inhibitions, with powers normal in direction but explosive in manifestation because of the sudden relief from these inhibitions. Particularly is the female natural child liable to present this combination, as did Lucrezia Borgia, Sancia of Aragon, the daughters of Charlemagne, Emma and Bertha, the latter's namesake of Provence, the Bourbon Blois and Nantes, dethroned Brunswick's daughter Civry, Neitschütz of Saxony and Althea Sittig; not to cite others, whose names there has been over-frequent occasion to mention in sinistral ways, as it is.

If the variation of instinctive sexual vigor in either of the extremes be

*Continued from July, 1901. Notes referred to in text of preceding numbers.

regarded pathological, there is risk of confounding such conditions as normal ardor with nymphomania and satyriasis; from these they are as remote, as is a Brillat-Savarin from the allotriophagous bulimic! One might as well classify with the abulimic, the one who keeps Lent; and with the bulimic the members of the "Beefsteak Club"—the Ichthyophageous Club representing a sort of intermediate class—as to suggest placing an Arria or Cornelia in one, and Messalina or Montijo in another of Krafft-Ebing's classes. The incalculable harm done by the popularization of "Dipsomania" as a conception which from its legitimate application to a minimal number of cases of periodical psychopathies became extended to include the indulgences of reckless livers, has been duplicated by the popularization of "Psychopathia Sexualis." The latter has done more to impair the appreciation of true states meriting such designation than a generation of conscientious students and judicious critics may repair!

The children procreated near the climacteric period of "*belle-esprits*, actresses and such, like those born at the same maternal period in wedlock are chiefly male. The offspring in both instances are marked by a lack of energy and display few positive characteristics. As I have shown in a paper on the relation between diabetes in the parent and hebephrenia in the child, the diminished energy of maternity near the climacteric ensures preponderance of male children, but such of defective masculinity. Excessive sexuality at an earlier period of the mother's life appears to have a similar influence.

103 It had been one of the strange plays of Fate had George I been correct in suspecting George II, his successor, to have been really the son of Sophia Dorothea by that Konigsmark, who on Countess Platen's betrayal, was privately made away with at Hanover. Aurora von Konigsmark's visit to Augustus the Strong was ostensibly to secure vengeance for her brother Philip's death. The immediate consequence, instead, was the Marshal Saxe; who may, however, be regarded as having in a way accomplished his mother's aim, eclipsing what another (possibly Konigsmark) blooded commander had done for the Guelphs at Dettingen, by what he did against their Cumberland at Fontenoy!

Sophia Dorothea was the offspring of a secret marriage, whose relations continued clandestine covering her birth; nor was it fully legitimated for a long period after that birth, Eleanor d'Olbreuse the mother, having been of very inferior rank. Heiress of the last Duke of Celle, she married George and bore Frederick the Great's mother as well as the future king of England and victor of Dettingen, George II. Another coincidence: Monmouth was in all probability—as Lucy had not been particular, eventually dying a Parisian *fille du pave*—the son of Algernon Sydney's brother; so that the same blood flowing in divided channels, again met on Tower Hill, where Monmouth, the nephew's, execution followed that of Algernon, the uncle's; just as it had met on opposite sides in battle as mentioned in Note 90, that is, if we assume the Stuart paternity for him.

104 Charlemagne's procreations illustrate the age law. Those by his first wives and concubines were all males; those by the latter, in his later

years, show an increasing proportion of females (Gerswinda, Adeltrude, Adelaide, Regina, etc). With a stray Drogo (Archbishop of Metz) and Hugo, the list of males ended and females exclusively recorded as born thereafter.

105 It is rather by the striking character of individual cases, than by statistics (which I have not available) that the popular impression is sustained. A number could be related like the one of Enzio's long life under disadvantages; the legitimate half-brothers under favorable circumstances (Henry and Konrad) being short-lived. Julius of Este reached the eighty-third year, having been imprisoned from 1506 to 1559 (+ 1561); far outliving his legitimate brethren. The number of septuagenarians, and octogenarians in my list, bears an unusually high proportion among those of authentically known age. It will be remembered that a large number fell in battle, were executed or assassinated. A few committed suicide, and others perished in duel or by accident. There are also to be deducted those still living. Of only sixty-six of the remainder was the age at decease accurately known:

Deceased aged over 90 years	2
" " over 85 and under 90	3
" " " 80 and under 85	9
" " " 75 and under 80	9
" " " 70 and under 75	8
" " " 65 and under 70	15
" " " 60 and under 65	8
" under 60	12
	66

The average age of the 66 was 75,1/6 years. Of course the fact that many of these individuals were collected from history, itself invalidates the significance of these figures. Nevertheless as compared with legitimates accummulated from the same sources, it seems higher by an average of 6⅔ years. Among the evidences of the superior "bioplasmic index" of natural children is their lesser percentage of deaf mutes. Karsch, for example, finds that while 7 to 8 per cent of the births in Alsatia are illegitimate, only 4 per cent. of the deaf-mutes are of like birth, and similar figures are obtained from other districts (*Friederich's Blatter*, 1882-83 p. 387). It is remarkable in this connection that the single congenitally deaf (or deaf mute?) person in my series is a *notho-nothus:* Kola Herzen, son of the notorious Alexander (Note 97). Parental solicitude was again illustrated here, as the father attempted to secure Fröbel of the 1848 Frankfort Parliament as his tutor.

The proportion of illegitimately born among those officially registered as insane, is in few instances above and in the overwhelming majority below their figure in the general population. Among the insane criminals however, it is in the only set of figures at my disposal practically equal. I compiled these from the cases reported in an excellent treatise on "Insanity and Crime" by Sander and Richter (*Geisteskrankheit und Verbrechen*). As regards any special type of mental disorder among natural children, such as has been attributed to them by more than one author, as naturally grow-

ing out of their contumelious situation, I am unable to discover such. Paranoia when present, is usually of the project-making kind, and illegitimates are largely represented among that small but obtrusive class on the borderland of blackmailing and charity-abusing propensities associated with the "Insane Temperament." One such, copying "Mrs. Flite," as she was induced to confess she had done with conscious and calculated intention —was a well-known figure in the offices of New York's lawyers, levying contributions with a success, merited by better unfortunates. She utilized the period of the Lunacy Reform Agitation of 1878-81 to invade the consulting rooms of physicians, favoring the neurologists. On this tour she encountered me—who on the first occasion purchased her departure; on the second obtained the confession referred to. This showing is all the more favorable to bastards, as its figure of defectives must be unduly swelled by the results of consanguinity which—notwithstanding the strange view of some recent writers—I believe with Bemis (*Medical Chir. Rev.*, July, 1860; *Medical Press and Circular*, 1898) and the majority of older investigators, both anthropological and veterinary, to be a vitiating one. Such procreations have been and are frequent. (Notes 81, 82, 90.) When the Romans discriminated from *liberi naturales*, as children procreated in concubinage proper, from those the offspring of sporadic or clandestine unions (*spurii*, *adulterini*, and *vulgo quaseti*) they separately enumerated the *incestuosi* or offspring of illicit relations between nearest blood relatives. The French likewise speak of the *batard simple and adulterine* as distinct from the *batard incestueux*. Not to mention individual experience, which is apt to be diverted by the intentional search, let the reader take any work containing the reports of a large number of individual cases, including a full family history and he will find that it was not in olden times alone, nor is it to-day in one land only, that incestuous bastardy occurs. The annals of sexual perversion contain a quota; for example in Krafft-Ebing's cases 137 and 190, the subjects of that anamoly were *incestuosi*.

106 How little this is realized by certain "progressive intellects and others in advance of the century" is shown in most of the projects for improving the human race by breeding. The sequel is cited from a scientific journal whose standing precludes the possibility of the fictional or mystification of its readers. The relator writing of an investigator at the Chicago University, says that "he and his wife began to prepare themselves for parenthood a year or two before they created their last child. They avoided all one-sided specialism and aimed to develop all the good emotions. * * * During pregnancy his wife avoided all evil passions, anger, envy. * * *" The lady to accomplish this aim, must have dispensed with servants and been liberal in construing the reasonable limit of the marital partner's possible absence at night. She must, to evade occasion for "envy" have tabooed visits to bazaars, social functions, the reading of periodicals devoted to such or to the fashions—in short excluded all that varies monotony and *calls into action self-control*. She thereby avoided all ways of acquiring the *savoir faire* and suppressed that gregarious tendency without which altruism

were inconceivable as a healthy ideal and sane egoism equally so as an equity-based realization! This child had acquired a vocabulary of eleven thousand words—when four years old! There is the one slim chance in favor of this infant, that notwithstanding the conscientious solicitude displayed in its procreation, a better than the parental genius prevailed, neutralizing such inventive stupidity—to profit by such possible chance, it seems essential that its further education be conducted under other auspices and in an environment radically changed. Notwithstanding the efforts made to avoid "one-sided specialism," a comparison of dates shows that one parent was engaged in studying sexual perversion if not at, very near the period referred to as the one when the child was "created"—a new interpretation of the conception of a creator, by the way! The unfortunate features of this project recall Millot's "Megalanthropogenesis" or "Art of Breeding Great Men;" of which work the only criticism made was "that it was a pity Millot's father had not possessed a copy *prior* to Millot's conception."

107 *Medical Standard*, (Chicago) February, 1889. This case is reported briefly by Dr. R. H. Hutchason of Gentryville, Indiana. I presume the mother to have had her attention fixed on the musician, apprehensive of his noticing her act, that she noted his, however, having done so; and, as he had tapped her in banter, she in that simulated indifference which is the refuge under such circumstances, entered into the spirit of her teaser. The case is of special interest as bearing on the question directly the issue, namely the influence of mental tension at the critical moment of conception. If a *physical* vision at that moment may so profoundly affect the grossly morphological, what may not the *psychical* impress the neuroplasm with foreshadowing mental tendencies reflecting the temporary state of one parent or of both?

SELECTIONS.

CLINICAL NEUROLOGY.

OXYGEN IN NEURONE EXHAUSTION.—Dr. Max Verworn from experiments on frogs (*Berlin Klin. Woch.* Feb. 4, 1901) has revised the old opinion of Meynert as to the influence of de-oxygenation in producing conditions of nerve fatigue and exhaustion. Meynert claimed (*Psychiatry*, Sachs. Translation 1886) that contraction of the arteries by impeding the respiration of the nervous elements must necessarily engender a dyspnœtic phase of nutrition, and modify the chemical changes going on in these elements. As a further result of this, sensory stimulus is associated with the irritation resulting from a certain degree of dyspnœtic intoxication. Dyspnœa of tissue is alone sufficient to excite repulsive movements. Inspiration is the most ordinary form of repulsive movement evoked by a dyspnœtic stimulus which in extreme cases may by irradiation involve a number of muscles. But this dyspnœtic stimulus results not only from defective breathing but also from increased arterial pressure as in convulsions or from arterial contraction as in anaemia. The impoverishment of the brain substance in oxygen has the effect of a chemical irritant which excites dyspnœtic respiration in the oblongata and may produce epileptic changes in the so-called convulsion centres.

INNERVATION AREAS AND NEVUS.—Dr. Pirro Bolognini reports the case (*Pediatria*) of a nevus separation from the normal skin by a line which arose at the root of the neck on the right side, continued horizontally for about one cm. around the neck and descended to the right

sternoclavicular articulation; then continuing downward it joined the left middle sternal line at the level of the third interspace, thence extended to the ensiform cartilage and ascended to the right one-half cm. above the mammary line, returning to the axillary line three cm. above the axilla. Thence the outline proceeded upward and backward across the middle of the scapula at the level of the second dorsal vertebra, then forward and upward to the place at the root of the neck where we began. The rest of the skin of the upper extremity was also discolored and appeared of a mottled bluish-red color. The skin of the arm was darker than that of the chest, the region of the elbow was slightly lighter, and the skin of the forearm was darker again. The posterior aspect of the upper limb, however, showed a strip of normally colored skin which was about two finger-breadths in width extending up to the axilla and down to the middle of the forearm. A smaller, clear space was also noted over the styloid process of the ulna. The skin of the hand was divided into two regions by the discoloration. The portion which embraced the three inner fingers and the adjacent region of the hand was a dark red color, while the rest of the hand was covered with normally colored skin.

SPASMODIC DYSURIA OF CHILDREN.—The bladder neuroses, as Dr. D. Durante remarks, demand attention since even the first day of birth spasmodic dysuria may appear. Other bladder neuroses like pallakuiuria, nocturnal enuresis and diabetes insipitus may likewise occur (*Paedeatrics*, May 15, 1901). In addition there may disturbances of urination as the result of the presence of calculi, and in intestinal diseases of children there may also be disorders of the urinary function. In addition to these cases there are instances of dysuria and vesical tenesmus which do not depend on any of the causes aboved enumerated and constitute the only symptom manifested by the child. The patient begins to cry, grows very restless, pulls up his legs on the abdomen and after a few minutes, urination takes place. The jet of urine is normal, not interrupted, and the

quantity of urine emitted is large. The act of urination is immediately followed by a cessation of the pain and the child becomes perfectly quiet. This order of events may be observed at intervals, especially in younger children. The trouble lasts a few days, perhaps a week, and then disappears, with or without the intervention of medical treatment. The author reports a case of this kind.

There can be no doubt that there is a neurosis of the bladder in children which does not depend upon any anatomical lesion but is due to a disorder of the nerves which supply the vesical apparatus. It is characterized by a difficulty in the emission of urine, by a spasm of the sphincter of the bladder and by pain, which permits the designation *painful spasmodic dysuria*.

In order to understand the pathogenesis of this condition it will be necessary, first, that we examine the condition under which the act of normal micturition takes place. The urine flows gradually into the bladder. As long as its quantity is small the elasticity of the sphincter is sufficient to keep it within the bladder, but as the urine accumulates the walls become distended, sense of fullness is experienced and a sensory impulse is conveyed to the sphincter center which reflexly relaxes the muscle over which it presides. If the bladder is filled while the child sleeps, there is a struggle for supremacy between the sphincter, which bars exit from the bladder and the muscles of the bladder-wall which become distended and reflexly contract, seeking to expel the contents. If the sphincter gives way the urine escapes. In children in whom the intelligence as yet plays no role in the act, the process of micturition takes place exactly as described above for the sleeping person. Adults, by the exercise of the will, can contract the sphincter most strongly and thus balance the accumulating tension. If the nerves that supply the sphincter in childhood be disordered there may be a disturbance of the equilibrium between the sphincter and the detrusor muscles and the sphincter contracts more strongly than usual, with the result of producing a spasmodic condition, such as described above. The bladder fills up in the meanwhile and the sense of fullness

gives place to pain. Finally the detrusor muscle overcomes the resistance of the sphincter and the urine escapes. A tendency to nervous derangements is often sufficient to determine a disorder of the sphincter such as has been described. The treatment is exclusively medical and consists of regulation of the diet in order to avoid reflex irritation from the intestines, tepid baths, hot poultices to the hypogastrium and the administration of sedatives and alkalies. The general condition should also be attended to, particularly the tendency to nervousness and rickets.

ACID INTOXICATION IN EPILEPSY. P. PINI.—*Rivista Sperimentale di Freniatria* xxvii, 1. Reggio Emelia, injected into rabbits brain substance from cadavers of epileptics causing no symptoms of intoxication but a slight rise in temperature. Injection of two to five c.c. of epileptic blood, in the intervals between seizures, had no effect on the animals, but the injection of one to three c.c. of blood drawn during an attack, produced paralysis of the hind legs in the rabbits, and death in forty days. The facts with those noted at the autopsy of twenty epileptics who had died in the status led Pini to conclude that epilepsy is an acid intoxication due to some abnormal process in the formation of uric acid, the paroxysm being an effort to rid the system of morbid metabolism.

HYSTERICAL APHASIA. G. GUILLAIN.—*Revue Neurologique* (Paris), April 30. A diagnosis of a typical chronic, right hemiplegia with aphasia from embolism or thrombosis, and long treated as such without relief, was altered to that of a functional lesion of hysteric origin. The affection had commenced with a sudden onset after a violent emotion, the subject being a young man free from syphilis and arteriosclerosis. Among the suspicious signs were that the leg did not draw in walking, and that the patient could pick up a pin on the table with ease. The knee-jerk and all the reflexes on one side were exaggerated. Flexion of the elbows equal.

PATHOGENESIS OF NIGHT TERRORS IN CHILDREN. —J. G. Rey traces nightmares and night terrors to some

obstacle to respiration and hematosis of direct or reflex origin. Both being the result of slow, prolonged intoxication with carbon dioxid.—*Revue Mensuelle des Maladie de l'Enfance.*

FORENSIC PSYCHIATRY.

RESPONSIBILITY OF THE SEXUAL PERVERT.—Dr. H. N. Moyer, (*Medicine*, July, 1901,) takes a conservative view as to this subject, regarding sexual perversion as an evidence of instability of the nervous system not indicating mental irresponsibility. He cites with approval the decision in a recent case in England. A man was indicted (*Journal of Mental Science*, April, 1901) for the murder of a widow who lived alone with a babe in a small cottage. The man had been attracted by her though they had never spoken. The man had remarked in conversation that there was a nice young widow living up the yard and the day before the murder, was seen walking up and down in front of the house and looking up at her windows. December 23rd the mother of the deceased left her safe at 9 p. m. The accused had drunk with some companions in a public house from 7:15 until 10 p. m.

The prisoner was made the subject of a joke which affected him so that he burst into tears. He left his companions about a mile from home. On the following morning the deceased was found in bed in a pool of blood, with seven incised wounds. She died the same night. She said that she thought that the prisoner entered her room during the night. She screamed and resisted him. He threatened to kill her, and she went round the bed to the side where the baby was lying. Seeing that he meant to injure the baby she sprang out of bed, and there was a struggle, during which he struck her. She then fainted. The arrested prisoner said, "You have got the wrong man," but subsequently he confessed to the effect that when at the public-house he had been chaffed about having killed the pig. This, with the drink he had taken, upset him. He

went to the house of the deceased and broke in; she screamed and he used his knife. It appeared that two years ago the prisoner, during the absence of his master and mistress, broke into their house and stole a variety of articles, including women's underclothing, in which he dressed himself. He then killed a pig, scattering part of the body all over the premises. He afterward hung up the carcass, with the underclothes stuffed inside it. The prisoner was found guilty and sentenced to death.

The Journal of Mental Science says the case is one of sadism, and holds that one whose instincts are thus perverted is, in a certain sense, of unsound mind. The plea of insanity properly failed, as granting the existence of a morbid instinct, it was still not shown that the instinct was uncontrollable. "Had the prisoner gratified a normal lust in spite of the struggles of his victim, he would have been properly punished, and there is no reason why he should not be punished for an abnormal lust. To act on any other system would be to remove the influence of punishment from the very persons who most need it."

This is an argument from consequences and is unworthy a scientist. The whole question turns on the power to refrain. The position as to unsound mind of the *Journal of Mental Science*, nullifies its position as to responsibility. Sadism is not *per se* an expression of unsound mind as has been repeatedly pointed out in the ALIENIST AND NEUROLOGIST. K.

FORENSIC ASPECTS OF HEAD-KNOCKING IN CHILDREN.—According to Dr. C. J. Aldrich "head-knocking" while common among English children who are rachitic is rare among American. He has only two cases (Annals of Gyn. and Paed. Vol. xiv N. 6.) One patient was aged thirteen months and cachectic. His face, neck and head were covered with contusions, due to its peculiar habit. Cruelty on the part of the parents had been suspected, but a watch set upon the child revealed the rationale of the injuries. An interesting medico-legal point is thereby raised in allegations of cruelty to children es-

pecially when the latter are found dead. This patient had marked evidences of rickets. It appeared to enjoy its self-inflicted punishments which took the form of striking its head upon the floor.

SUGGESTION AND DYING DECLARATIONS.—*The Lancet* recently cited a case in which a so-called dying declaration was ruled out on the ground that it was in reality not such, but differed very little from an ordinary deposition, made by a sick person, or one who believed that he would not recover. A dying declaration, to be admissible, according to the judge who tried the case, should be made by the deceased person under the idea that dissolution was imminent, and should not be in answer to the questions of others; and hence answers to mere questioning of a sick person, by a physician, for example, even if made in the presence of a magistrate, is not admissible as a dying declaration.

FORENSIC NON-CRIMINAL ASPECTS OF PSYCHIC EPILEPSY.—Dr. J. W. Courtney reports the case of defective consciousness engrafted on epileptic constitution. The patient (*Medical News*, June 22, 1901,) when eighteen years of age had a fall from a tree striking his head. He got up, began to walk, but did not fully regain consciousness until he had traveled several miles. He recognized that he had gone a long distance but could not tell why, though he was aware that he had had a fall. Several years later he began to have fainting spells, during which his mind was a blank. Four years ago these spells were preceded by a bad taste in the mouth, and as unconsciousness began to develop he would clutch at near-by objects. Since this time there have been constantly recurring ambulatory and other automatic acts. While walking upon the street his mind suddenly becomes a blank, and he continues on indefinitely, knowing nothing of what he is doing, or where he is going. On one occasion he remembers entering a saloon and asking someone to drink with him, but he does not remember going to the bar. Several hours later he found himself under arrest for drunkenness. His memory is poor, but be-

tween the attacks he manages to tend to his work. Sleep is as a rule good, but occasionally there are two or three nights in which he is wakeful, and upon these occasions his mind is not clear. Examination is negative from a physical standpoint; mentally the patient is sluggish and shows marked impairment of memory. There are no hallucinatory or delusionary precursors of the attack. During one attack he sat staring at a newspaper, which he held semi-inverted, as if in the act of turning it. The pupils were equal, moderately contracted, irresponsive to light. The face was congested and sweat poured from the forehead; the patellar reflexes were absent. He paid no attention to questions even when they were put to him in loud, sharp tones. There were no convulsive movements. Given a pasteboard card, he tore it industrially in layers, and then demolished a block of prescription blanks slip by slip. When nudged or shaken he merely grunted and continued what he was doing. Ten minutes after onset he answered questions somewhat, but could not tell where he was. He was then given a promissory note for ten thousand dollars made payable to me for value received, and asked, after reading it, to sign it. He does so, and is then asked to add the date. In response to this he looked at the newspaper in his lap, asked what the date was, and when told repeated his question several times, finally adding date to the note. He was then told to read the note aloud, and does so, calling $10,000 'ten dollars.' He was told that the sum is ten thousand dollars, and asked if he meant to sign it. He said he did. Five minutes later he is shown the note again, but remembers nothing about having seen or signed it. Half an hour after the onset the patient is almost fully conscious and remembers nothing whatever about the attack or anything connected with it. His knee-jerks are now present and normal. The pulse and respiration have been normal throughout." It is to be regretted crime suggestibility was not tested also. K.

DOUBLE CONSCIOUSNESS.—A case has been reported lately under this title (*New York Medical Journal*, June 15, 1901.)

The subject arrived in Buffalo late May 24th. Two days later he had forgotten who or where he was, or where he came from. He seemed to remember most of what had occured subsequent to arrival in Buffalo. The address of a married woman was found in his pocket but he denied any knowledge of her. Drs. Krauss, Crego and Putnam hypnotized the patient. While in the hypnotic state he readily answered questions as to his identity and informed the physicians that he came from Providence, was twenty-five years of age, married, and the representative of an insurance company. He did not know that he was in Buffalo, and was uncertain as to how he got there. On being restored to full consciousness he remembered having decided to come to the Exposition, but everything that had transpired subsequently appeared now to be a blank. The woman whose address was found upon him proved to be his sister, who was able to definitely fix his identity. The condition is one of amnesia rather than double consciousness.

SEEMING PREMEDITATION BY AN EPILEPTIC HOMICIDE.—State's Attorney Graves of Geneseo, Ill., reports the case of a twenty-three year old school teacher who had married a man a few years older, thereby incurring the ill-feeling of her mother who continually nagged the daughter anent the husband. The husband had taken out a policy of insurance prior to marriage which the wife insisted should be changed to her favor. The husband yielded. The policy was alleged by the proper officials to have been changed just before the homicide. Three hundred dollars to which the wife had access were missing after the homicide. The defendant taught school as usual during the week previous to the homicide. She left it Friday night in order as usual as if intending to come back on Monday. Saturday night following the close of the school (the same day in which she was informed that the policy of insurance was transferred) she (*Illinois Medical Journal* Aug. 1901) asked her husband to leave the light burning under pretense that she had toothache and would probably

be up several times during the night. This was for the purpose (as thereafter confessed) of having a light in the room to enable her to kill her husband. During the night she got up for the purpose of killing him, but accidentally awakened her husband, whereupon she temporarily abandoned the design and went to bed. The following Sunday she went to church morning and afternoon. In the evening about 7 p. m. while the husband was on the lounge apparently asleep she got the revolver for the purpose of killing him. Observing that he stirred and was not fully asleep, she passed by her husband and hid the revolver in a room the door of which was near to the head of the lounge upon which he was resting. Waiting until he was sound asleep, she secured the revolver and shot her husband in the right temple but did not injure the brain or stun the deceased. As he sprang up she fired at him three or four times more, one shot taking effect in the neck and one in the abdomen from which death resulted twenty-four hours later. The husband in his dying statement claimed that she had killed him for his money and his insurance. An hour elapsed from the time of the homicide during which she refused to call for help despite the urgent repeated requests of the husband. She then gave the alarm stating that he had shot himself but that he charged her with so doing. She finally admitted under great pressure that she had killed him. During confinement in jail she wrote letters showing that she had married against her mother's wishes because she wanted a home which was better than slaving herself as she had been previously doing and also that constant nagging of her mother continued after the marriage and had evidently made a deep impression on her. The letters leave the inference that this nagging had led to the homicide. At the time of the homicide she was between two and three months pregnant. Just prior to it she had expressed a strong dislike to her husband. Her great grandmother had been insane and committed suicide. The seven children of this great-grandmother had become insane at various periods and that none had ever recovered once the insanity developed. The grandfather of the defendant was insane

and hung himself. Her father's mother while pregnant became incurably insane. The father also became insane at an early age and had but the one child, the defendant. She bore a marked resemblance to her father, she had peculiar twitchings of the face and body, had a peculiar stare and was of a very nervous temperament and was frequently seen to drop her knife and fork at the table and to lose her mental grasp for some minutes at a time. While the history suggests, strongly, epilepsy in a degenerate, yet the exciting factor of the homicide seems to be the mental state of pregnancy aggravated by the nagging of the mother which under the unbalanced will of pregnancy would suggest a dislike to the husband. State's Attorney Graves, basing his opinion on the hereditary history, claims, that the woman should never be released from an insane hospital since the insanity is likely to manifest itself again in the form of homicidal impulses. This opinion is based on the old notion of homicidal impulse. This the defendant did not manifest, since there was a seemingly intelligent motive for the crime underlain by an insane motive, due to the mental state of pregnancy acted on by the nagging suggestion of the mother. While therefore the mental state should after delivery be carefully watched, still it must be remembered that the conjunction of circumstances producing the homicide is such as might never occur again in the life of the individual.

NEURO-PATHOLOGY.

SPINAL LESIONS FROM DYSTOCIA.—Dr. C. Handwerck reports the case of a girl born after podalic version (*Arch. of Paed.* July, 1901) had been performed on account of transverse presentation. The legs were completely paralyzed and did not react to electrical stimulation, the upper half of the body was normal in every way. Feces and urine were not passed spontaneously unless the child was raised from its horizontal position. Emaciation progressed and became extreme. Owing to paralysis of the

extensor muscles of the back a kyphosis developed in the lumbar region. Enteritis and colicystitis caused death at the age of two and one-half months. At the necropsy suppurative cystitis and pyelonephritis were found. From the lower dorsal region to the cauda equina, the spinal cord was converted into a softened, yellowish mass, the softening being due to the action of the trauma directly on the nerve tissue, and not to hemorrhage. No lesion of the spinal column existed. In the upper dorsal region there were small areas of softening which were secondary and due to stasis in the blood and lymph vessels. In this region there was also some degree of hydromyelia with a dorsal diverticulum. The gray substance in the lumbar region was the seat of two cavitives (syringomyelia) the one on the right side being larger than the left. The lining cells of the central canal were markedly proliferated in this region.

NEURO-THERAPY.

THE GOOD AND BAD EFFECTS OBTAINABLE FROM DIGITALIS USED AS A THERAPEUTIC AGENT.—W. H. Porter (*American Medicine*, April 27, 1901) says that the composition of digitalis, chemically speaking, is very complex, and some of its active principles antagonize others; that the different preparations differ widely in their composition and action. The cumulative action of digitalis is due to its contracting the arterioles, thus shutting off nutrition. The drug is therefore both a useful and a dangerous remedy, and one that has a very limited range of usefulness. It is only of use in lesions of the mitral valve, and even then only for a short time. It should only be used when there is low arterial tension and marked venous engorgements, and as soon as these conditions are overcome its action should be suspended. As a diuretic it is only of value when there is low arterial tension, venous engorgement, and obstruction to the exit of blood from the kidney. Acting upon the normal and in all diseased conditions in which

there is obstruction to the exit of blood from the kidney, it decreases the excretory activity of the renal glands, and impairs their nutritive activity. If pushed to its fullest extent it may completely arrest the functional activity of the renal glands.

MECHANICAL TREATMENT OF VERTIGO.—Urbantschitsch (*Wien. Klin. Woch.*, No. 7, 1901) reports a case of severe vertigo in a man after an operation upon the mastoid cells. In scraping the carious mass an opening was made into the semi-circular canals. He staggered and could not go up stairs. Hearing was unaffected. Ten weeks after the operation the vertigo persisting, the author used methodic head movements. Rapid improvement followed. In two weeks he could, though with some difficulty, use a wheelbarrow. After three weeks the patient resumed his occupation though his instability had not entirely disappeared. Urbantschitsch thinks these rhythmic head exercises have given considerable success in many cases of vertigo but it is probable that the disturbed vaso-motor cerebral arteriole control was gradually regained in spite of the treatment through time and *vis medicatrix naturae*.

NINE CASES OF MELANCHOLIA TREATED WITH THYREOIDS.—By Samuel Bell, M. D., Medical Superintendent Lakeside Hospital for Mental and Nervous Diseases, Groose Pointe, Mich. Nearly all cases under this treatment had been subjected to other methods, but with very little, if any, improvement.

Five cases were very much improved, and to all appearances were entirely well. The periods of mental depression had passed away, nutrition was vastly improved, and a brighter and more cheerful condition took the place of a despondent and dejected one. Two of the five have since suffered a mild relapse, while one who had not improved, at first, has since done so. Fifteen grains of thyreoids per diem was the maximum dose at first, which was gradually increased to fifty grains in accordance with the indications. The preparation used was that of Parke, Davis & Co.—From *The Leucocyte*, February, 1901.

DIAGNOSIS THERAPY OF LOCOMOTOR ATAXIA.—Erb (*Med. Wochenschr.*) details a series of cases which had all been preceded by symptoms of secondary syphilis, some as far back as twenty-four years. In one group of cases the tendon reflexes were normal even after four to seven years' duration of slight lancinating pain, bladder insufficiency, sensory disturbances, easy fatigue, slight pupillary sign and "Rhomberg's symptom." A second group presented no subjective symptom whatever, and but very few and almost un-noticeable objective symptoms. Still another group was attended by marked gastro-intestinal disturbances, not typical of tabes, and with bilateral paresis of the sixth nerve and pupil sign. The author insists on always investigating the knee-jerk and pupil reflex in suspected cases. Tabetic symptoms with an antecedent syphilis are always serious. Absence of a syphilitic history does not establish the existence of tabes, even though some symptoms may exist. For the pains in tabes dorsalis one antikamnia friend insists on the value antikamnia and salol given in doses of two tablets two and one-half grains each every two or three hours, as preferable to opium and its alkaloids.

NEURO-PHYSIOLOGY.

ON VASOMOTOR NERVES IN THE BRAIN.—In a recent editorial in which we called attention to some observations by Dercum and Spiller on the presence of myelinated nerve fibers in the spinal pia, we referred to Obersteiner's and Gulland's discoveries of the existence of nerves in the blood-vessels of the pia. We expressed the belief that these nerves were unquestionably vasomotor, and that the circulation in the central nervous system was not entirely at the mercy of the blood-pressure, but could be influenced by the action of vaso-constrictor nerves, just as the blood-supply of other organs. When writing this editorial we were unaware of the valuable and important studies of Huber, of the University of Michigan, who, by means of the Ehrlich intravital method of staining with methylene

blue, was able to demonstrate unequivocally the presence of nerve fibers in the pia mater. These nerve fibers he found to be of two kinds: sensory and vasomotor. The differentiation was based upon the following grounds: The nerves considered sensory were distinctly medullated; they occurred in relatively large bundles, especially when in relation with the vessels at the base of the brain; they anastomosed to form wide-meshed plexuses surrounding the vessels; their neuraxons were larger than those of the sympathetic nerves; they branched and rebranched, and presented the short internodular segments usually observed when the sensory fibers approach their termination; and their terminal branches, which were varicose and nonmedullated, ended in fibrous tissue—the adventitia of vessels—or in the pia; the vasomotor fibers, on the other hand, ended in the muscular coat of vessels. Where the entire ending of the medullary fibers could be made out, the ends resembled the peripheral termination of sensory nerves in other parts of the body. The vasomotor nerves were nonmedullated and formed an interlacing network around the vessels. The fibrils terminated in the muscular coat of the pial vessels, in a manner in every respect identical with that of the vasomotor nerves in other parts of the body.

In order to determine whether the vasomotor nerves are derived from the ganglion cells of the cervical sympathetic ganglia, Huber extirpated the latter and endeavored to demonstrate degenerative changes in the pial nerves; but the results were not very satisfactory. An attempt was also made to find nerve fibers in the choroid plexuses of the ventricles, but without success; nor was it possible to to trace nerves along the vessels penetrating from the pia into the brain.

In the dura mater two types of nerves were likewise found, of the same character as those in the pia; namely, sympathetic nerves, forming pervascular plexuses, and medullated sensory nerves terminating in the tissues of the dura.

Physiologists have hitherto denied the existence of vasomotor nerves in the brain, because experiments under-

taken to demonstrate their presence have failed; we may, however, with Mosso and Obersteiner, attribute the negative results of the experiments to the probable fact that the vasomotor nerves of the brain are very quickly exhausted, and fail to respond to stimuli when the vasomotor nerves in other parts of the body still react.—*American Medicine.*

THE RELATION OF PROSTATE TO THE FECUNDATING POWER OF SEMEN (EXPERIMENTAL STUDY.)—G. Walker, *Johns Hopkins Hospital Bulletin*, March, 1901, instituted a series of experiments in which the gland, in part or entire, of white rats was excised.

Six pairs; anterior lobes excised; two bred normally, two had small litters, two negative.

Fifteeen pairs; anterior lobes removed; nine bred normally, five proved negative, one escaped.

Five pairs; after first operation, removal of anterior lobes; four out of five bred normally; one negative. After second operation of complete removal, one bred normally, four negative.

Eleven pairs; complete removal of the gland at one sitting; eight negative, three small litters; none positive.

Prostate gland removed in early life; did not have any effect on the subsequent development of the testes.

Dr. Walker draws the following conclusions:

First. Removal of the anterior lobes of the prostate gland in rats has no effect on breeding; but in a certain number it diminishes the fecundating power; (in a few it is destroyed entirely.)

Second. Complete excision has a very marked effect on fecundity, reducing it almost to *nil* when the gland is entirely removed.

Third. Partial or complete removal of the prostate has no effect upon the sexual desire and capacity.

Fourth. Complete removal of the gland in the adult animal has no effect on the histological structure of the testicles. Complete removal of the prostate in the young animal has no effect upon the subsequent development of the testes.

NEURO-SURGERY.

JACKSONIAN EPILEPSY WITH REFERENCE TO OPERATION.—Dr. J. J. Putnan, Boston, Mass., considers this form of epilepsy to be the only one that warrants surgical intervention, and he advises it although neurologists are more conservative on that point now than a few years ago. A focal lesion is not always found, but even in such cases operation frequently does good, perhaps through producton of an inhibitory effect and the breaking of a vicious circle.

NEURO-PHYSIOLOGY.

ON THE EVIDENCE OF THE GOLGI METHOD FOR THE THEORY OF NEURON RETRACTION. Richard Weil and Robert Frank.—Neuron retractability is regarded by the majority of observers as a function of the protoplasmic processes, and it is best manifested by the pyramidal cells of the cerebrum and the Purkinje cells of the cerebellum. Two changes are said to occur: First, the appearance of localized swellings or "varicosities" along the course of the dendrites, and second, the disappearance of the gemmules, or dendritic spines, at the site of these swellings. The two phenomena are supposed, except by Lugaro, to be correlated. The spinous processes withdraw into the body of the dendrites and by so doing produce a localized swelling. Human and experimental material of the greatest diversity has been investigated: of the former, brains of diphtheria, typhoid, insolation, etc.; of the latter, brains of animals poisoned by arsenic, lead, morphine, strychnine, chloroform, tuberculosis hydrophobia, experimental strumapriva, "experimental uraemia," etc. The method employed has always been the rapid Golgi (or Cajal) method, except in the case of certain recent works of Lugaro's, who has employed Cox's modification of the corrosive method. Criticism of the conclusion above stated has not been lacking. Both gemmules and varicosities are by some authorites considered to be artifacts; others, like Lugaro, while admitting

their occasional authenticity, attribute a variable proportion of their number to post mortem processes. Lugaro asserts that the only form of the Golgi method which does not exaggerate the true number of varicosities is the Cox modification.

In this investigation four forms of the Golgi method were made use of, the rapid, mixed and slow modifications of the bichromate-silver method, and the Cox modification of the corrosive method. The number of animals used was forty-three. There were five cases of human material, three adults and two foetuses; one dog and thirty-seven rabbits. Of the rabbits ten were normal; of the remainder two we poisoned by morphine, one by strychnine, four by chloroform and the rest by the injection of hypertoxic urine or serum. Nine of the rabbits were treated uniformly according to four methods, the three bichromate-silver modifications and the Cox; two were treated according to the rapid Golgi method and the Cox; the rest according to the rapid, mixed, or slow procedure alone. In all, 342 pieces were sectioned. The cerebral cortex alone was studied.

The conclusions reached are as follows:

First. The same material, when treated by different methods, yields different results. The nature of the differences in each kind of material is as follows:

All materials treated according to the slow method of Golgi shows, as a rule, an almost absolute freedom from varicosties; varicose cells occasionally occur, but with a relative frequency which is perhaps not greater than a fraction of one per cent. of the total number of pyramid cells impregnated. Exceptionally, a large proportion of varicosities occur.

The mixed method and the rapid method may be considered together. These two methods yield practically similar results as regards the varicosities and the gemmules. The gemmules are almost invariably present and are generally regular, provided the dendrites have taken the impregnation. The varicosities occur in variable proportions. Altogether, their frequency is generally greater and it is almost always very much greater than the slow method. In

some sections almost every dendrite is varicose, in others hardly any.

In the Cox method a fair amount of varicoseness is generally present at any stage of fixation. Gemmules are almost universally present and regular.

Second. The above results are independent of the nature of the material whether normal or toxic. Normal material, as well as the toxic, is as a rule, free from varicosities when treated by the slow method. Normal material, as well as the toxic, exhibits a variable amount of varicosity when treated by any of the other three methods we have used. We find that it varies within exactly the same limits as the abnormal; that every degree of varicoseness can be illustrated with equal freedom from either, and finally, that it is impossible for an unprejudiced observer to differentiate or distinguish between the two kinds of material.

Third. The same material does not yield constantly identical results when treated by one and the same method. Pieces from the same animal, when immersed in the same fluids of the slow, mixed, rapid or Cox method, may illustrate the varicoseness produced by that method.

The above conclusions seem to demonstrate that the varicosities are to be regarded as artifices of the Golgi method. (*Archives of Neurology and Psychopathology*, Vol. 2, Nos. 3-4, 1899.—*Journal of Mental Pathology*.

L'ETUDE DE L'ETAT MONILIFORME DES DENDRITIES CORTICALES.—Dr. T. Geier, Physician to the *Moscow Clinic of Psychiatry*. Authors differ in opinion as to the significance of the varicose condition of the dendrites, as well as to the conditions under which the moniliform changes are produced. Most authors hold that the inhalation of the narcotics—chloroform, ether, etc.—have an influence on the cortical nervous cells that causes swellings of the dendrites. While Demoor, Melle. Stefanowska, Havet, and others are disciples of the narcotic influence theory, others, like Lugaro, Soukhandoff, etc., affirm that these inhalations have no influence on the

moniliform formations in the dendrities. The author experimented on animals, using ether and chloroform. The brains were examined by means of the rapid Golgi-Ramony Cajal method; all specimens were treated alike, two days in a mixture of osmic acid and potassium bichromate, and one day in a solution of nitrate of silver (0.75 per cent). The specimens were examined under a lens enlarging 500 to 900 diameter. Eight experiments were made in all and the conclusions were:

(First.) In the cerebral cortex there are nervous cells of spherical or oval shape; in the normal state their protoplasmic prolongations have no collateral ramifications, the main prolongation presenting in its whole length small swellings. These cells, it seems, must be either Golgi cells of the second type or cells of Cajal or cells of Martinotti.

(Second.) The granular focuses observed by Melle. Stefanowska, identical with our network of fine filaments with small swellings, must not be considered as ordinary moniliform conditions. We think that these granular focuses consist of protoplasmic prolongations of the above-named cells and the normal axis cylinders with the ramifications.

(Third.) Even profound etherization and chloroforming do not cause a moniliform condition of the dendrites.

(Fourth.) The moniliform cannot be considered as an expression of the plasticity of the dendrites.

(Fifth.) The moniliform condition is either an expression of a pathological state of the cells or of its exhaustion.

(Sixth.) In the experiments where chloroform and ether are used for the purpose of determining whether these narcotics are responsible for the moniliform formations in the dendrites, one must carefully choose the animals for experiment, paying particular attention to the physical condition. (Nevraxe, February 7, 1901.—*Journal of Mental Pathology*.

THE

ALIENIST AND NEUROLOGIST.

VOL. XXII. ST. LOUIS, OCTOBER, 1901. No. 4.

Subscription $5.00 per Annum in Advance. $1.25 Single Copy

CHAS. H. HUGHES, M. D., Editor.
Editorial Rooms, 3857 Olive Street.

HENRY L. HUGHES, Manager and Publisher,
Business Office, 3857 Olive Street.

This Journal is published quarterly between the first and fifteenth of January, April, July and October and subscribers failing to receive the Journal by the 20th of the month of issue will please notify us promptly.

EDITORIAL.

[*All Unsigned Editorials are written by the Editor.*]

WITH BOWED HEADS AND BRUISED HEARTS a mourning Nation laments another martyred President, the third within near the average life-time of man.

Stricken unto death by paranoiac assassin hand, moved to the dastard deed by inspiration of calumnious speech and villainous epithets applied under undue license of language, in the fair abused name of Freedom; "McKinley was the tool of Mark Hanna and Mark Hanna was the agent of oppressive trusts" said the villainous instigators of this violence, and this of the people's executive head, now no longer a partisan but the country's chosen chief.

Down the line passed the calumnies which could not have been said face to face to any citizen without quick retributive resentment, till a weak misled anarchist takes up the false accusations and transforms the seditious calumnious words into murderous action.

Thus another noble President is martyred, this time by anarchy's foul, treacherous heart, while His Excellency is in the kindly act of a benignant public function. With his cordial hand outstretched and a benign smile on his good and noble face the President is stealthily shot unto death by the hand that should have loved and shielded him, for the assassin was one of the humblest and meanest of men, graciously permitted, as in no other country, to take the hand of the Nation's great Governor.

Land of the "free hearts hope and home" shall another President of this great Republic be thus wounded to his death by villainous calumny? Shall murderous Anarchy be instigated and emboldened again to strike another stealthy blow at this free country's chief executive by permitting unbridled villainy of tongue and pen? Liberty demands no such foul pollution of pen or speech. Statute guarded freedom needs no such license of language.

The hand of an American president should be clasped only by patriot people and his fair name should be exempt from calumnious speech of demagogues. This "government of the people, for the people and by the people" will live though its presidents are foully slain, but its presidents should live also.

THE PRESIDENT'S ASSASSIN.—On the sixth of September Leon F. Czolgosz while in line to greet President McKinley at the Music Hall of the Buffalo Pan American Exposition, with revolver concealed in his right hand by a handkerchief, fired two shots into the Chief Magistrate's body. The sad sequel has already been mournfully told by a sorrowing people.

The President died of his wounds on the morning of the eighth day after the firing of the fatal shot. Promptly disarmed and borne to the ground by those about him, the captive assassin showed neither emotion of fear nor remorse and went to prison confessing and justifying the foul

deed as one of fancied duty. Then with paranoiac egotism and an assumed or real stoical indifference to consequences, he exclaimed: "Tell them all that Czolgosz lived without hope and perished without fear. There is no hereafter and death ends all" repeating often "I killed the President and as an anarchist did my duty." In jail he ate and slept well and was tranquil, asked for a cigar and accepted the security of his captivity as one who had done a noble deed, in this darkest of crimes. There is a painful suggestion of paranoia here, that bids the psychologist seek further than the imbecile mind of the convicted assassin for the *raisin d'etre* of this foul crime against constitutional liberty.

That sound public policy which makes it unwise to let these poranoiac villains escape, should seek further than the fool who fired the fatal shot and gather into the toils of Justice the Nihilistic villains who have stood behind and urged the paranoiac actor on to the dastardly deed.

A COMMISSIO DE LUNATICO ENQUIRENDO FOR CZOLGOSZ might not establish the assassin's irresponsible insanity but it might bring to light accessories before the fact of the crime and enable the people to see the guiltier than Czolgosz brought to retributive justice. If Czolgosz had no accomplices the fact would point to paranoia.

Hunt down the accessory conspirators.

THE PRESIDENT'S WOUND AND DEATH have lead to some controversy which we do not wish now to discuss at length.

Bullet wounds of the abdominal viscera followed by gangrene, as was the case of the unfortunate President, are necessarily fatal, even though the stomach escapes wounding. The President had the benefit of good and prompt surgical skill and the fatal sequel could not have been averted.

Our only comment would be on the great proneness of surgeons to exclude essential medical counsel in such cases as the President's. In all grave wounds the man, as well as the wounded part should be considered, and in a multitude of medical counsel, even in a surgical case, there is

safety, as well as in the mere technical skill of the surgeon. In the brilliant light of modern medical illumination upon the processes of disease and diagnostic discernment, surgical cases cannot longer be regarded as exclusively alone for the surgeon. Haematology, urinology, cytology, neurology and psychiatry, as well as especially skilled knowledge of the viscera and all inner medicine, should hold worthy place in all counsel as to surgical after management, and oftentimes in pre-surgical treatment. Medicine now marches on as a whole as well as in sections.

Good surgical reasons are given by the surgeons for promptly closing the abdominal cavity after the suturing of the perforated stomach, an operation well and skillfully and timely done. Family objections are said to have also embarrassed the surgeons some in extensive search for the bullet and the X-ray examination was not brought into use for reasons satisfactory to those in attendance who had located the ball in the muscles of the back.

Up to the time of the tragedy the President's vitality had been overtaxed. His nerve centers were strained by the combined fatigue of the California trip, his domestic anxiety and watching over his wife and his excessive smoking, added to the prolonged exceptionally severe official burden he had so long previously borne. Under these circumstances the counsel and prescriptions of skilled neurologists accustomed to the care of brain-burdened, brain-fagged and nerve-tired organisms might have been of service to the surgery of the President though they could not have saved the doomed life. This sort of service is not esteemed as it should be by many mere wielders of the knife. Gangrene makes its destructive way to do its worst when nerve center resistance is broken and reconstructive blood disintegrates.

There is a neuro-psychic aspect to every case of major surgery worthy of more consideration than most surgeons by force of restrictive thought, give to the subject. McKinley went into the fight for his life handicapped by fatigued nerve centers, that lowered resistance, made dissolution, by gangrene a possibility. When the nerve center senti-

nels are not on active duty and the neurones are exhausted the issue of a vital conflict in traumatism is never hopeful.

PROMISCUOUS PRESIDENTIAL HAND-SHAKING WITH UNCREDENTIATED PEOPLE should pass into innocuous desuetude, more honored in breach than in observance. For not now as of yore do only patriots offer honest, harmless, hearty American hands to our Presidents. The treacherous Joabs of Anarchy walk in the ranks with patriots, stealthily stealing their infamous way among a trusting Nation's people, soiling the sacred soil and defiling the once pure air of law regulated freedom. Let this promiscuous hand shaking cease and anarchists cease to be in this land of Constitutional Liberty. Let the custom pass from official usage with our Presidents.

Over the martyred bier of this, the best of Presidents, let Americans swear to rid the land of Anarchy's stealthy peril. Fiends unfit to touch the hem of Liberty's garment kill and cry anarchy. Let not again their murderous hands touch an American President. Let the custom pass. It breeds microbic infection and anarchic paranoiacism. All are not patriots, as aforetime when men approached Freedom's Chief Custodian to clasp his honored hand. Let the custom pass and the red flag of Anarchy and its upholders find other homes than the Land of our Freedom.

ST. LOUIS IN 1903.—St. Louis is the place and Nineteen Hundred and Three the time, where and when will be commemorated the dedication of an empire of territory to American Freedom and American civilization. The Giant Forest City of the Louisiana purchase and Queen City of the King of Rivers is to make her mark, as other cities have done, with a World's Fair.

What impress for all time shall this exposition make on the world? Shall it be a glorious commercial and business display showing the wonderful material resources and marvelous financial prosperity of the Empire Napoleon, in behalf of his people, gave to Jefferson for ours and the world's people who have populated it and are yet to

fill it or shall it be a grand glorious showing of everything of interest to the world besides; those great things far above and beyond mere money-making contrivances and resources that rightly used and appreciated mark a people as wise and great? Shall the great underlying sciences that have made modern mercantile and manufacturing prosperity possible, find full and appropriate place in the exhibit or only evidence of business prosperity? Analytical chemistry, synthetic chemistry, metallurgy, the evolution of implements of scientific research and scientific use, the laboratories of the chemist, the thaumaturgist of science, the processes of separating the noble from the ignoble metals, the advances and methods of work in electricity and it's wizard devices, and those of steam and compressed and frozen air, the manner and methods of harnessing the lightning, the rivers, the cataract and the waves and other forces of nature for man's use in the arts and science and his happiness as well as business and the comforts of travel and home; the astronomical and hydraulic advances, the world's filter and garbage reduction processes, world's coal and water, gas plants and its gas machinery in general; the world's system of consuming garbage and disposal of sewage and all sanitary methods of quarantine and cure; the world's best methods of sanitation and how through science and good government and our thorough political push or pull they have been accomplished.

Astronomy with all of its wonders. The stars, the planets and the seasons, the winds and tides and weather and how they are governed and interpreted for man's welfare, even for the good of business. The contributions of science to the present possibilities of business and further progress in photography, the telegraph, telephones, long and short distance, phonographs, graphophones, gramophones; in the type-writers and type-setting machines, the cotton gin, sewing machines, calculating machines, machines of peace and war, all machinery and all methods of transportation. Not only the things themselves but the scientific work that has brought them forth and the men and methods that made them possible. The Whitney's, the

Edison's, the Morses', the Franklin's, the Singer's *et id omne genus*. Political and religious morals, pedagogy, physiology, pathology, ornathology, anthropology, ethnology, the fossils and caves and minerals and minerology and the testimony of the rocks of this region and its natural history and geology.

The wondrous advances in neurology, psychology, ophthalmology and optics, anatomy, biology, surgery, pathology, poetry, literature, history, botany, bacteriology, climatology and the amazing resources of modern scientific medicine that has marshalled into its use so many of the sciences and resources of Nature, for the prevention and cure of disease and the sustaining of man's capabilities for action in business and in the higher walks of human endeavor against the stress and strain of the modern strenuous life.

Shall the exposition be an Universal Exposition of the world's progress in this section especially in everything great and good, artistic, aesthetic and useful, since Jefferson passed the purchased territory of Louisiana into the hands of the Goddess of American Liberty, or chiefly one of commercial progress? We have cause to glorify our commercial advance since then, but our greatest glory is in the things that the mere commercial mind is apt to undervalue, scientific, moral and mental as well as monetary progress and the things that directly make them. The religions of the world in origin and evolution should have a large place as well as church architecture and the cost of churches. The best of the world who come to see, will measure us not by our monetary but by our mental and moral progress as well. Shall we show these to our very best advantage or shall they be made secondary exhibits? These are the things with which we should aspire to be accredited by the world. Big barns, big boats, big ledgers, big buildings and big business and big bank accounts are good, but they are not all and do not necessarily make men nor show a people to advantage. Let us show the world the best sort of men and women and all the wondrous works of Nature or of man's contrivance, developed, discovered or produced since 1803 in the Louisiana Purchase territory.

The invention of the cotton gin and the spinning jenny, the hempbrake and brick machine, refining of sugar and the utilization of cotton seed were all developed in this section. (The father of a St. Louisan, devised in St. Louis, and patented the first perfected hempbrake machine and one of the earliest brick presses.)

The literature and literati, poets, historians, scientists, jurists, physicians, novelists, naturalists and prelates of these great new-born states one hundred years ago, should have a place in the centennial exhibit of the Louisiana purchase territory. Its map of honor and progress will be incomplete without the record of their work and that of many others.

The names and deeds and statues of La Salle and Marquette, Eads and Beaumont, Ephriam McDowell, Carr Lane, Hogden, Pope, Linn, Linton, Moore, Audubon, Englemann, Shumard, Swallow and hosts of others are quite as much to the credit of this section in its progress as its "Napoleons of finance" or its "merchant princes," and the politicians or the pillars of its management. Let us all get into the push or pull of this enterprise and place it on a broader and higher pedestal, in its showing, than all predecessors of its kind—then Saint Louis will shine in 1903 in cosmic glory and be known by the Nations as the latest and best of the world's great exhibition cities.

We have given our money, not as much as the multimillionare corporations have given but our thousand dollar mite, and we have no business interest to promote thereby, in the hope that the coming Louisiana purchase exposition may be an advance over the Chicago and Buffalo and other predecessors, in that it may not be mainly a commercial, mechanical, architectural and landscape display, but a complete science, art and ethical advance showing such as the world has not seen its like before and may not see its like again. Our enthusiasm for and loyalty to the honor of St. Louis prompts us here to speak. Let no well wisher of the coming world's fair be offended but rather take our words to heart and push on to perfection the worlds greatest exhibition. It has not been designated a commercial exhibition. Let us not have it solely such.

BRAITHWAIT'S RETROSPECT.—After a successful life of more than sixty years this old and valued retrospect now ceases its welcome visits to the profession.

It supplied a distinct want in the past and was the pioneer "review of reviews" in medicine, and for nearly half a century the only work of its kind in the medical world.

The habit of abstracting has become such a common feature of the weekly and monthly medical journals as to largely supercede the necessity of the *Retrospect*, and after a ripe old age, after "a retrospect" of sixty years of well done work and full of the honors of a worthy service it gracefully gives up its work and departs from the arena of its triumphant usefulness. The names of Doctors Braithwait and Trevelyan will remain a happy cherished memory in the profession they have served so long and so well.

PSYCHOPATHIC ANNEXES AND PSYCHOPATHIC HOSPITALS.—Every general hospital aiming at completeness should have a properly constructed psychopathic annex. To be properly constructed, regard in architectural arrangement should be had to the peculiarities and needs of psychic disease as well as to accompanying complicating, antidating or sequent physical ailment. The life of psychic delusional disease with its peculiar inclinations so different from other patients and necessitating different environing restraint and mental care should influence the architecture. The determined suicide or the melancholic liable at any unexpected moment to develop suicide impulsions should have no chance to break glass in his room, and sever an artery or windpipe or gouge out an eye or entangle his neck in a transom just big enough to break it. Transoms should be too narrow to admit the head and screened, and so should window guards, so that suspended or torn sheets could not be used for hanging. There should be no door knobs on the inside of bed rooms for this class of the insane.

Psychopathic annexes ought to belong to every general hospital, for the delirious, the suddenly developed maniacal, and the drug and heat crazed.

The safety of the insane patient from himself and of

other patients and of the attendants from him is to be considered in the construction of the psychopathic annex as it is in the building of the insane hospital, and in order that all liberty of action compatible with the safety and welfare of the patient, should be given him, the annex psychopathic hospital requires many considerations in construction not necessary to be given to a hospital for sane people. Unbreakable glass windows, heating apparatus that can not be reached by the insane, dining rooms under peculiar surveillance without handy carving knives, sewing rooms for ladies without pointed scissors, accessable and assembly rooms with safely guarded windows and suitable furniture to guard against casualties.

The psychopathic hospital annex should have means of mental diversion different from and more extensive than the ordinary hospital, though the ordinary hospital does usually make adequate recreation provision for the convalescent. The mind of the convalescent sane or insane needs diversion.

The present hospital for the insane is an evolution from the psychopathic annex. Benjamin Rush and the Quakers were the first to establish a psychopathic annex in connection with the Pennsylvania Hospital early in the preceding century and out of Rush's initiative grew the Insane Department of Pennsylvania Hospital and many other similar institutions. The psychopathic hospital annex for temporary management of acute insanity associated with discoverable and promptly remediable physical disease, is a good idea and should be an appurtenance of every general hospital, but there should also be close at hand or readily accessible, the regular insane hospital for the acute and chronic cases who require more latitude in hospital living and more safe-guards in their home, than can be economically or properly provided in a ward or closely attached annex of the general hospital. The hospital annex should come for certain acutely insane. The delirious, the drink and drug maniacs, etc., excited epileptic paroxysmally hysteric, hystero-epileptic, etc., but the regular hospital for the insane should not go. It can never be economically or wisely supplanted by

any cheap psychopathic annex to a general hospital. There are necessarily expensive asylum features necessitated for the mentally maimed who need asylum as well as hospital treatment. The worst enemy of the hospital for the insane and of the insane in general hospitals is the politician and the politically rapidly rotated political medical hospital or asylum officer. Let the psychopathic hospital annex come, but do not let the present psychopathic *hospital* go, unless the former is to be built on a scale too broad for a mere annex ward or aggregation of added rooms.

DEATH OF DR. FRANK HOYT.—Dr. Frank Crampton Hoyt, superintendent of the Iowa Hospital for the Insane, at Mount Pleasant, contracted a severe cold while attending the meeting of the American Medico-Psychological Association at Richmond, Va., in May, 1900, and died on the 21st of May, last, of bronchial pneumonia.

He was born in Denver, Colo., November 17th, 1859, and graduated from the College of Physicians and Surgeons, at St. Joseph, Mo., in 1881, and from the University of Louisville in 1885, was second assistant physician of the State Hospital for the Insane, at St. Joseph, Mo., from 1887 to 1892, and on January 1st, 1893, became Superintendent of the Iowa Hospital for the Insane, at Clarinda, resigning September 1st, 1898, and in November of the same year became Superintendent of the hospital at Mt. Pleasant, Iowa.

Capable, energetic, zealous and enthusiastic he made his brief mark on clinical psychiatry and died in the midst of his work.

CONCUSSIONAL OR TRAUMATIC CEREBRO-SPINAL NEUROSES.—Dr. Harold N. Moyer in *American Medicine*, June 22nd, discussing the traumatic neuroses, characterizes them as 'so-called,' and concludes an interesting paper by saying:

That concussion neurosis, in all its various appellations, is an unfortunate and misleading term; that clearer understanding of functional nervous troubles renders such a term unnecessary; that pain and tenderness of the spine is rarely an evidence of change in the cord, but is usually due to

fatigue of the spinal muscles, or *sprains and concussions of the column; that most of the symptoms of spinal concussion,* as the term is commonly used, *are cerebral in origin,* and that a correct diagnosis and prognosis may usually be reached by analyzing all such cases after the same manner that we do functional nervous troubles having their origin in non-traumatic causes.

Thus admitting the potency of concussion to affect the spinal column and the brain and the dorsal muscles, but not to involve the cord. If there is any meaning to the term concussion and it is capable of straining and affecting the spinal muscles and brain and if there is such a thing as concussion to the brain the result of a fall or blow, then why seek to invoke only medical agencies, to account for the post-traumatic cerebro-spinal conditions following sudden and violent injury without fracture and to rule out the one very apparent and tangible cause of certain traumatic sequences? The latent surgical possibilities are tacitly admitted by conceding that the sequences are such as we find in "functional troubles having their origin in non-traumatic causes." Why not rule out surgical fever and all other post-traumatic symptomatology, not toxhaemic, that may also result from non-surgical states?

Why not deny traumatic cerebral coma because it may follow the functional neuroses like epilepsy, a "functional nervous trouble having its origin in traumatic injury as well as heredity and possibly autotoxicity and possibly a germ." Others have attempted, mostly railway surgeons, to eliminate cerebro-spinal concussion by a similar method of analogical theoretical reasoning but the fact exists that certain spino-cerebral symptoms follow concussion, whether the victim has or has not given evidence of previous cerebro-spinal neurotic disorder. Most of the constitutional sequences of surgical injury may result from other than surgical disease. Surgery does not rule out every symptom of this kind as of no consequence. Neither should neurologists.

CHRISTIAN SCIENCE AND CRUMPETS.—The case has lately been reported of a Christian Scientist who, dying

from cancer killed himself for the purpose of proving that physicians were unnecessary. This recalls the gentleman mentioned by Sam Weller (*Pickwick Papers*) who killed himself on principle. "He wos," Mr. Weller remarks, "a wery pleasant gen'l'm'n too-one o' the percise and tidy sort, as puts their feet in little Indian-rubber fire buckets wen it's wet weather and never has no other bosom friends but hare-skins, etc., whose doctor attributed his illness to eating crumpets though he had eaten them all his life regularly on principle and who on the doctors saying half a crown's worth would kill him bids the doctor good night, and next mornin' he gets up, has a fire lit, orders three shillins' worth o' crumpets toasts 'em all, eats 'em all and blows his brains out." "What did he do that for?" inquired Mr.Pickwick abruptly, for he was considerably startled by this tragical termination of the narrative.

"Wot did he do it for sir?" reiterated Sam. "Wy in support of his great principles that crumpets wos wholesome and to show that he wouldn't be put out of his way for nobody." The devotion to principle of Sam Weller's hero is fully equaled by that of the Christian Scientists. K.

THE DOCTOR'S DUTY TO INFORM THE PEOPLE.—The journal of the A. M. A. (June 15th,) after denouncing political coroner's verdicts, especially a ridiculous one of suicide in a case of decapitation, thus pertinently points out professional duty to the public: "When we begin, as a profession, to recognize and take up our public responsibilities, the removal of this important function from the hands of incompetent and often worse than incompetent politicians will not be one of the least important benefits that we can endeavor to confer upon our fellow-citizens." When men well-qualified, medical men and not quacks, post the public through the public press and everywhere as they ought on matters medical, as the code enjoins, then will the profession secure and hold its proper place in public councils. It is through lack of light that superstitious darkness reigns and fads and fakers flourish. It is through lack of light that an army and navy medical officer holds comparatively degrad-

ed rank in the United States service when it should be equal to the highest.

It is through lack of light that medical counsel is not lawfully provided for in the President's cabinet, that the marine hospital service is obliged to serve the nation inland where it does not belong.

It is through lack of light that ministers preach poison from their pulpits and attest to the innocuousness of patented poisonous potions. It is through lack of light that the religious and secular press are innocent participators in these crimes against the public health.

It is through lack of light that the profession should give and through lack of influence it should wield, but does not, that the dark days of mysticism and superstition still linger with us in the twentieth century that boasts of its light and has it and gives it in other spheres of human influence.

POST-OPERATIVE INSANITY.—A St. Louis surgeon having performed an enterorrhaphy with acute mania without sepsis as a sequel gives this as the rule adopted by most surgeons, viz: Under no circumstances ought any insane woman to be operated upon unless for some distinct condition that is compromising life.

This is not a rule based on a clinical knowledge with those who have done their own surgery in a hospital for the insane or have advised surgical procedures on the insane. A grave surgical disease preceding insanity or supervening a psychosis may be removed unless the proposal to operate and the preparation and operative procedure are in the line of and aggravate the patient's delusions. Rules of therapeutic procedure medical, moral or surgical in psychiatry are out of the range of the average surgeon's clinical experience and he should defer to psychiatric judgment in the premises and not formulate rules purely from the surgeon's standpoint. The practical alienist might enlighten surgery in some surgical quarters where surgeons walk in darkness and the darkness comprehendeth not.

FREDA WARD'S COUNTERPART.—Dr. John G. Simmons, a well-known practicing physician of Westchester, Borough of the Bronx, N. Y., has marital troubles of a peculiar nature. He has been sued for divorce and alimony on statutory grounds by his wife, Mrs. Marie Simmons, while, in countercharges, he alleges that his home has been broken up, not by a man, as is usually the case, but by a woman, who exerts an unnatural influence over his wife, and who has taken her away from Westchester to a furnished house in One Hundred and Thirty-eighth street, where the two have been living together since last Monday.

The case, Dr. Simmons declares, is one which parallels that of Freda Ward, of Chattanooga, which attracted wide attention eight or ten years ago.

SECRETS OF LONGEVITY BY AN OCTOGENARIAN.—Russell Sage, the financial Sage of Wall Street, in an interview August 6th, imparts some of the secrets of longevity. He enjoys life, is moderate in all things, avoids extremes and excesses and the worry and uncertainty of margin. He builds but never wrecks in business and always keeps working. This is the secret of his getting more out of life than many men who give big dinners and have yachts.

He enjoys life because he is built that way in his central governing neurones. He does not go to extremes because his nerve centers are steady, well-toned by adequate nutrition, periodic rests and good hereditary endowment and do not incline him or permit him to go that way. And so at eighty-five years he can say that he wants to wear out and not rust out because he is not yet worn out. This is the bouyancy of unspent neurones. When a man is worn out in his nerve centers he wants to rest and rust and nature soon heeds his wishes.

SURGERY AND THE CERVICAL SYMPATHETIC IN BASEDOW'S DISEASE.—The surgeons are now 'going for' the sympathetic in exophthalmic goiter. Horsley has lately (*Lancet* April 13th,) "removed the two upper ganglia on one side" for this trouble, stopping the throbbing pulsation

and improving the exophthalmos but not reducing the size of the thyroid.

Better have tried enforced psycho-neural rest and neural nutrition. Prolonged rest of mind and entire nervous system will accomplish more than the knife. It will cure if persisted in. The mental restfulness of hope inspired and the physical rest not attendant upon a surgical operation, after the temporary oblivion of chloroform, are of some therapeutic value but the cervical sympathetic centers are of too much value to the patient to be cut out for the little relief they give. Especially since with adequate chemical nerve restraint and nutrition sufficiently prolonged Grave's disease need not be classed as an incurable affection.

SOME OF OUR PROPRIETARY MEDICINE FRIENDS would make forceful clinical teachers. Here are samples for a quiz compend and blotters thrown in:

One Hundred Degrees in the shade. A disturbed stomach, no appetite, impoverished blood, more or less nervous exhaustion, tendency to diarrhoea. What remedy immediately suggests itself? Gray's.

That sick child with very little vitality and low-ebb nutrition will get exactly the needed help from Gray's Glycerine Tonic Comp. So say the leading pediatrists of America.

ARSENAURO HAS A WITTY TOMBSTONE AD.—On it is inscribed an *in memorium* "to John A. Jones, who had diabetes mellitus. His doctor prescribed Arsenauro but Jones got a fraudulent product without a seal on the neck of bottle, so here he is." This is not only a cute ad but it is a grave graveyard warning against substitution.

The druggist who substitutes often indirectly kills and sometimes should be shot. He and the Christian Scientists and the Osteopaths and kindred criminals should be indictable for murder, when fatality results, in certain cases, for death by therapeutic omission—life-saving relief knowingly omitted or prevented is as criminal as committed murder.

The smiling cheeky pharmacist who substitutes colossal

egotism and business greed for the doctor's knowledge ought to be brought to judgment and a proper appreciation of the dangers of his vocation criminally perverted by prescription substitution. He is licensed and expected to honestly dispense the genuine article, as called for. Betrayal of his trust puts him on a criminal plane with cruel, fatal consequences to those who confide in him.

THE DANGER AND HARMFULNESS OF PATENT MEDICINES, by Mrs. Martha M. Allen, is a powerful because truthful arraignment of the average patent medicine death-dealing deception in which the analyses of many of the nostrums of the day made popular by the accessory crime of a venal public press, is given, showing the deceptions practiced on a gullible public in concealing the potent poisons which they contain. Cures of inebriety and drug habits containing alcohol and the very drugs that have been used and commended by physicians and advertised in the daily papers and religious journals and commended by temperance reformers and ministers of the gospel.

The Pure Food Society should get after the patent medicine people and their accessories—the newspapers, and have penal laws passed against this conjoint crime of deception of the newspapers, the preachers and the patent medicine men and other "distinguished" personages whose "eminent faces" adorn the patent medicine advertisements. This doing business under false pretenses is criminal enough for the penitentiary.

THE EFFECT OF MEDICAL EDUCATION on the mind of a philosopher and educator was recently shown in the wording of the address of Dr. Samuel Spahr Laws, former president, before the Missouri University, June 3.

Discussing the potency of truth and after referring to Blackstone's basis of municipal laws and the prices of justice he says: "The power to apprehend, appreciate, tell and act the truth, though subjected to severe hereditary strain and repression, has not been wholly atrophied. It is still an inborn power or endowment of man, and it is

to this endowment of truth-discerning and truth-loving element in the natural make-up of every human being to which appeal should and must be primarily made when we undertake the work of education, private or public, academic or professional, as a matter of principle."

No doctor of medicine could speak in manner more technically or forcefully than this. Doctor Laws is an M. D., as well as L. L. D., and like our Doctor General Wood the doctor of medicine appears in his speech and work. A medical education will one day be recognized as the *sine qua non* of liberal culture among public men.

SURGICAL OPERATIONS ON THE INSANE.—Under this caption the *Medical Record* for April 6th, strikes nearer the truth as experienced alienists see it in the following statement: The practical point resides in the decision that pelvic disease should receive essentially the same treatment in neurotic or psychotic as in other women, *the complicating state per se affording neither the indication for nor the counterindication against operative intervention—except in so far as every source of irritation or excitation or drain of etiological possibility should be removed.*

The psychiatric and neuriatric clinician would commend this rule for all complicating surgical disease acting as sources of vital depression, obstruction or irritation whether located intra or extra pelvic. As apropos two cataract operations are recorded as curative of mental trouble.

IN MEMORIAM, WILLIAM LEONARD WORCESTER, M. D.—Dr. William L. Worcester, pathologist at the Danvers Insane Hospital died of septicemia, June 5th, aged fifty-six. He was born in Chelsea, Vt., 1845 and educated at the public schools of that state and at Dartmouth College. He was a son of a physician. He obtained his degree of doctor of medicine in Washington, and was for a time medical examiner in the pension department. After study in Europe, and private practice he adopted mental diseases and pathology as his special field. He was for eleven years assistant physician at Kalamazoo, Mich., and six years at the insane hospital at Little Rock, Ark., going to the Danvers

Hospital in 1895. As an alienist and pathologist Dr. Worcester had won distinction. Unassuming, quiet, unobtrusive he accomplished much of a most creditable character without fuss or feathers.

His contributions through the Worcester Hospital reports and elsewhere threw new light on neuropathology for the psychiatric clinician. He is accredited a pioneer in modern microscopic neuro-technique. Another good man gone will be the verdict of all who knew him and his work. His pathological work was always psychiatrically healthful, if we may be allowed such an expression. Danvers Hospital will miss him and clinical psychiatry will miss the light from the cadaver he threw over its not yet too well illuminated way. With his weeping friends we mourn his premature demise.

AUSTRIAN RECOGNITION OF THEO. MEYNERT'S psychiatric work has come tardily nine years after his death, in the recent unveiling of a bust to his memory, at the University, by the Austrian Government. But Benjamin Rush remains non-memorialed in government bronze or marble after nearly a century has elapsed since he rested from his labors for mankind and in the cause of the American colonies.

THAT BIZARRE CONDUCT IS NOT EX-NECESSITATE EVIDENCE OF INSANITY is shown in an unique game of poker in which the score of the indebted players was imprinted as I O U's on the winner's shirt and the winner's conduct when he found the shirt with seven hundred dollars to his credit marked thereon had been inadvertently sent to the laundry. The hotel was so crowded. The World's Fair was on in Chicago. These gentlemen had not where to lay their heads and that is why the winner sat up all night with the game.

Here is the remainder of the story in the winner's words:

"When the game was broken up at breakfast time the garment bore evidence of $700 being due by five of the gentlemen with whom I had passed the evening. Sunday forenoon I went home, and, being utterly fagged out, threw

the soiled shirt in one corner of the room and crawled into bed, after squaring myself with my wife by giving her money for a new garment.

"Monday morning I got up early, took a bath, put on clean linen, and went down town. I tried to read the morning paper, but was bothered by the thought that I had forgotten something. About the middle of the day it came to me like a flash that I had neglected to take care of my $700 shirt, and, calling a cabby, I had him drive me home on the dead run. Bursting into the house I surprised my wife with the inquiry:

"'Where's that shirt?'

"'What shirt?' was the aggravating question she flung back at me.

"'My $700 shirt!' I roared. 'That shirt I took off yesterday. It's worth $700.'

"By this time my wife was sure I was crazy, and looked at me in a distressed, mournful sort of way. Without giving her time to take any steps to have me locked up, I dashed down to the laundry and found the hired girl just in the act of sousing my shirt in the suds. Grabbing the garment from her, while she went upstairs to notify the madam that I was as luny as a bedbug, I carried the shirt, dripping wet, out into the sunlight and saw with great relief that the I O U's were still legible, having been written with an indelible pencil. Hanging the shirt on a line in the sun I sat down on the grass and watched it until it was dry, when I rolled it up in a bundle, took it down town and placed it carefully in a safety deposit box in the vaults under the First National Bank. The next day one of the debtors came to liquidate his debt, and I took him over to the safety deposit vault with me to see the erasure made. It was a week before all the debts were canceled. Every time one of my debtors came to the office to settle I would take him over to the vault, and mark off the amount of his payment. By the time all the payments were made the garment was in pretty bad condition, but I took it home and kept it as a souvenir until last spring, when a fresh domestic, ignorant of its history, used it scrub

windows, and one of the most valuable shirts ever worn by mortal man thus came to an ignoble end."

The story may be found *in extenso*, over a column long in the Sunday *Star*, St. Louis, June 2nd, and shows that strange actions unexplained are no certivia of insanity.

THE DELINEATIONS OF FEMININE FASHIONS reveal a horribly unanatomical distortion of the female form divine. The mammary region is displaced like a floating kidney until it is nearer the belt than the collar and the waist line drops almost to the umbilicus. The dear creatures of our tender moments, erect resemble the unfortunate victims of Scoliosis and Kyphosis combined. The skirt yet sweeps the microbe laden earth and death dealing floor in magnificently spreading complitude. Yet these are they who bear and nurture our babes, and themselves murderers of the innocent with the microbe death they gather, call men brutes who fight, and think it cruel to kill. Have our women gone wrong in the head that they cannot see the dangers of their present dress?

If our wives, sweethearts and mothers, and bless their dear fashion distracted souls and distorted bodies, could only be induced to devote the time and effort they bestow on the morbid transformations of their anatomies to fit the new fashion plates, how much nearer heavenly bliss, would the world be and how much further from Heaven would be many of the best and sweetest womanly souls of earth and how many happy kids, now happier in Heaven, would be yet with us, having escaped the microbe sorti of diphtheria, consumption, etc., 'swept from the streets into the house on the hems of their trailing dresses.

A CAPTURE BY COURTESY.—Parke Davis & Co., captured the Mississippi Valley Medical Association where Commodore Perry without courtesy captured the British ships at Put-in-Bay, and we were one of the delighted captives.

The captive association was taken to Detroit in a body and conducted over the grounds and laboratories of their

extensive establishment, domiciled and feasted and then turned loose to ruminate and cogitate on the wondrous completeness of the chemico-biological methods adopted by this great medical catering firm of the Northwest, to prove the merits and efficiency of its products.

Highly appreciative and commendatory resolutions were adopted by the association, but the copy is not at hand in time for this issue.

THE JOURNAL DE NEUROLOGIE, 5th and 20th August, comes to us just as we go to press, with a splendid original illustrated contribution, occupying the entire volume, on the Physiology and Pathology of the Muscular Tonus, of the reflexes and contractures, by J. Crocq, presenting new features of the subject and making exceedingly entertaining and profitable reading.

Likewise the *Journal of Comparative Neurology*, has a similarly valuable article by Gilbert Houser on the Neurones and Supporting Elements of the Brain of a Selachian, elaborately illustrated and well worth the year's subscription to this excellent and indispensable journal.

LYSSOPHOBIA, PSYCHIC HYDROPHOBIA.—The public press records a recent death from lyssophobia. The victim is Myron R. Olmstead, of Norwalk, Conn., who died from the bite of his pet dog two months ago. The dog has shown no signs of hydrophobia up to the present date.

A PSYCHIC SOURCE OF HAZING AT WEST POINT and of devilment among youths at college generally is the over nerve strain and excessive brain tension of the unnatural unphysiologically continued excessive and prolonged study of curriculum to which they are subjected. The overburdened brain must rebound from the long exhausting hours of study and attention. Persistent attention to the point of cerebrasthenia brings on the instability of debility and the reaction and rebound is unregulated mischief often so badly planned and imperfectly devised that tragic deaths unintentionally result.

If seven to eight hours out of each day is the limit

of respite at West Point from discipline and study, the strain of the study and military exercise should be reduced at least to one-third less time. Brains worked to weary restlessness are as prone to mischief as idle minds not worked enough. They are tired and fidgety children. The tendency of modern pedagogy is to cram the brain till it totters unstably under the might of teaching. Thus robbing the psychic neurones of adequate recuperating time and consequently of sufficient time for stable reflection in brains not particularly well endowed with inherent nerve tone.

We hope those in authority will give the cadets a better chance to develop better balanced brains by cramming them less. We concur with *American Medicine* that the evil at West Point of "demanding of the human brain three times as much as it can do" ought to be uprooted.

THE BIOPLASM FIEND now pursues us. We acknowledge with thanks Dr. Edwin F. Bowers proposition to give us a chance to make a fair test of Bioplasm and note with pleasure the following reference to its merits. It has been shown to be an excellent agent in sustaining function impaired by senility.

Thanks doctor. Should we get that way we will send for some or you send us samples which we will keep on hand in anticipation and for the mental aberration for which it is commended. Send us a lot and we will try it on some of our editorial colleagues. They need it.

TOLSTOI AND THE RUSSIAN PHYSICIANS.—The recent ex-communication of Tolstoi has not unnaturally led to much eulogy of him. From American standards however he shows rather a narrow egotism in remaining a member of a church while dissenting from its cardinal doctrine. Many of his ideas are as dilettantic as to reform as this procedure. In spite of the heroic record made by Russian physicians on behalf of freedom he criticizes the whole body for alleged delinquencies of a few. In his "What's To Be Done" he rabidly arraigns the medical profession of Russia thus: "In a still worse predicament is the physician. His fancied science is also arraigned that he only knows

how to deal with those persons who do nothing. He requires an incalculable quantity of expensive preparations, instruments, drugs and hygienic apparatus.

"He has studied with celebrities in the capitals, who only retain patients who can be cured in the hospitals, and who, in the course of their cure, can purchase the appliances requisite for healing, and even go at once from the North to the South, to some baths or other. Science is of such a nature, that every rural physician laments because there are no means of curing working-men, because he is so poor that he has not the means to place the sick man in the proper hygienic conditions; and at the same time the physician complains that there are no hospitals and that he cannot get through with his work, that he needs assistance, more doctors and practitioners. What is the inference? This: that the people's principal lack, from which diseases arise, and spread abroad, and refuse to be healed, is the lack of means of subsistence. And here science, under the banner of the division of labor, summons her warriors to the aid of the people. Science is entirely arranged for the wealthy classes, and it has adopted for its task the healing of the people who can obtain everything for themselves; and it attempts to heal those who possess no superfluity, by the same means. But there are no means, and therefore it is necessary to take them from the people who are ailing, and pest-stricken, and who cannot recover for lack of means. And now the defenders of medicine for the people say that this matter has been, as yet, but little developed: Evidently it has been little developed, because if (which God forbid!) it had been developed, and that through oppressing the people, instead of two doctors, midwives and practitioners in a district, twenty would have settled down, since they desire this, and half the people would have died through the difficulty of supporting the medical staff, and soon there would have been no one to heal.

"Scientific coöperation with the people, of whom the defenders of science talk, must be something quite differt. And as the coöperation which should exist has not yet

begun, it will begin when the man of science, technologist or physician, will not consider it legal to take from the people—I will not say a hundred thousand, but even a modest ten thousand, or five hundred thousand rubles for assisting them; but when he will live among the peasants and from them it may be expected that great improvements will be effected."

Tolstoi bumptiously ignores everything in the way of reform except the notoriously pauperizing system he has adopted. The physician is allowed by law about eight cents for visits. The proportion of physicians in Russia is the lowest in the civilized world. The Russian peasants are among the dirtiest, most unhygienic people in Europe and are at the stage of culture which ascribes disease to occult influences. With stupidity like this the Gods themselves as Schiller remarks would fight in vain. That the physicians of Russia have not neglected humanitarian duties however is significantly shown by the action on the censorship in 1892. The Odessa Society of Physicians applied for permission to publish a medical journal "without previous revision by the Censor." The Minister of the Interior declined to sanction the publication hence the Censor must pass upon the merits of each manuscript before it goes to press. To the uninitiated, the refusal to print a purely scientific paper without revision by the Censor may appear purely arbitrary. What has the Censor to do with the medical science? Is it likely that physicians as scientists would, in their professional journal, publish aught against the government or its officials? Such questions suggest themselves only to those ignorant of Russia. The famine of 1892 was mowing people down by the thousand and causing epidemics. The scientist interested naturally in the study of these subjects, so analyzed diseases due to hunger as to show the pathologic effects of unhealthy food used by the famishing people. This indirectly suggested to the reading public exact knowledge of a state of affairs in Russia which the government tries to suppress by every means in its power. Therefore medical manuscripts must be submitted to the Censor before issued.

The Russian Minister of the Interior in accordance with the policy of the Czar prevents the suffering of the Russian people from being divulged. Many facts like this censorship demonstrate that Russian physicians are doing an enormous humanitarian work despite their small numbers and the suspicion with which they are regarded by the bureaucracy and without the blatancy of Tolstoi. K.

AMERICAN MEDICINE claims to be founded, owned and controlled by the Medical Profession of America. This modest claim is made on the basis of the fact that it has been founded and is owned and controlled by a body of reputable medical men who are the stockholders and not men having other than medical interests to advance.

We wish the new enterprise, now six months old, success such a meritorious journal deserves; the only journal however approximately founded, owned and controlled by the medical profession of America is the journal of the American Medical Association but that does not claim to have been founded, owned and controlled by the medical profession of America but only by a part of the profession. THE ALIENIST AND NEUROLOGIST has been exclusively founded and is entirely controlled and supported by medical men of America and Europe but it is not owned and controlled by the profession of the world nevertheless it circulates all over the medical world. And there are others. The phraseology of the claim "founded, owned and controlled by the medical profession of America" is a little too broadly conclusive but we hope the rather too comprehensive claim will not impair appreciation of this really good and ably conducted medical periodical. There is a place for it, and *American Medicine* is filling it. Medical journals made by medical men, owned by medical men, for medical men are the proper sort of medical magazines for doctors.

BETTER BUSINESS ORGANIZATION among medical men is an imperiously demanded necessity for the common professional welfare. We meet and read papers for the

edification of each other and mutually help in the advancement of our science and art for the welfare of man, but do little else of a business character, like other big organizations, for mutual financial interests or the promotion of higher public appreciation, and the greater influence and higher standing of the medical profession.

Medical men have not the rank and standing they should have in the army or navy.

They have not the rank and standing they should hold in general public esteem or in the councils of the nation.

They have not the standing and appreciation they should have with the insurance companies.

The high professional qualifications and the general intelligence of medical men is far above the average man, yet men of less intelligence and capability are more prominent in all the great affairs of men. The doctor takes what they choose to bestow, like a mendicant, instead of asserting his right as an educated and qualified man to place the power with the rest. Somebody says, untruly, the doctor has no business ability, and that settles the doctor, for he acquiesces. Why are medical men so illy appreciated compared with their worth?

Why has the Surgeon General of the American army only the rank of Brigadier-General and why is not the greatest of all interests, the sanitary, not represented in the President's Cabinet? The sanitary welfare of the people is surely equal to that of law or agriculture and as essential to successful war or financial or commercial prosperity.

The answer is in the supineness and non-assertiveness of the medical profession. It walks in the wake of the clergy, like an almoner, instead of counsellor and master in knowledge of man and matters of utility to the people and accepts with thanks the crumbs that are thrown to it. It serves the kings of finance for pittances and rescues the afflicted poor and lifts the people's burden in this respect for nothing, while the people accumulate by wisely spending the time in money making which the doctor spends in lifting the whole of the people's common burdens of charity with free dispensaries. The profession of med-

icine walks behind, when it ought to lead and it could and would lead if organized for that purpose. Through combination of its intelligence and unity of action, it would have just warrant to lead the people when now it meekly and almost obsequiously follows. Forward men of medicine.

DR. GEORGE H. SEARCY, of Tuscaloosa, Alabama, is spending a few weeks at the Kalamazoo, Mich., asylum studying its methods. Dr. Searcy is a graduate of the medical department of the University of Michigan, and a son of Dr. J. T. Searcy, medical superintendent of the Alabama Bryce Hospital for the Insane at Tuscaloosa. He expects in a few months to become an assistant to his father whose wish it is that he do some post-graduate work in one or two of the leading hospitals for the care of the insane. After a few month's work there, he expects to go to Worchester, Massachusetts, to observe the methods in the hospital for the insane there, and then to Tuscaloosa to take up his formal work.

This is the way to make competent and great Alienists, Clinicians and capable future Insane Hospital superintendents and physicians.

ON THE 1ST OF JULY the superintendent, Dr. Edwards, received from Mrs. Annie L. Raymond, of Chicago, a crisp new one hundred dollar bill with the request that it "be used in any way that will contribute to the pleasure of the patients individually, or however may seem best." It is a great pleasure and delight to be thus so kindly remembered, and could our friends who make us such gifts see how thoroughly the patients enjoy the pleasures they procure, we are sure that they would be amply repaid. We extend thanks to Mrs. Raymond.—*Michigan Asylum News.*

Here is a not overworked field of Philanthropy. The A. AND N. joins in thanks to the thoughtful Mrs. Raymond. Who will be the next?

REVIEWS, BOOK NOTICES, REPRINTS, ETC.

PSYCHOLOGY EMPIRICAL AND RATIONAL. By Michael Maher, S. J. London, Eng., Longmans, Green & Co., 1900.

This is the discussion of psychology from the viewpoint of the Society of Jesus. While assuming impartiality, an undue tendency is evinced to start with the acceptance of theologic dogma as axioms. Maher professing to be guided by the great schoolmen undoubtedly draws his material not from their works but from Saures' version of these. Much of the material assumedly gathered from modern psychology is taken from the works of its opponents. Maher is clearly unaware that St. Augustine distinctly rejected a special creation in favor of a doctrine which without violence to language may be called a theory of evolution. Duns Scotus and Thomas Aquinas simply expounded these views of St. Augustine. He seems also unaware that Duns Scotus held to the material nature of thought and was opposed in this particular by Ockham. The errors as to the teachings of the schoolmen naturally prepare the reader for greater blunders in regard to modern psyschology and biology. The curious error is made of citing Weismann as an opponent of Darwin. No one would be more surprised at this citation than Weisman himself whose great error lies in an over-estimate of the value of Natural Selection. Errors like these seriously mar the value of the work and seemingly impugn the good faith of the author who is blameworthy only for taking his material from sources hostile to the views advanced. The style is pedagogic rather than logical and is by no means clear.

ATLAS OF THE NERVOUS SYSTEM. By Dr. Christfried Jakob. Authorized translation from the second revised German edition. Edited by Edward D. Fisher. M. D. Small 8vo. Pp. 218, with 84 plates and 29 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901.

When the first edition of this atlas was published five years ago we welcomed it as a useful guide for the student. The present edition is greatly improved. Many new plates have been added, and many of the old plates have been changed; the delineation is much clearer, the crudeness of the coloring has been modified, and some of the representations are remarkably life-like. The outline diagram opposite the plates of the various sections is a valuable addition. The present volume gives to the student, in compact form and at a very low price, a very large number of really admirably colored plates, which show with accuracy the essential features of the anatomy and pathology of the central nervous system, combined with a very concise explanatory text. It it heartily to be commended.

LIBERTINISM AND MARRIAGE. By Dr. Louis Julien, Paris. Surgeon of Saint Lazaro Prison; Laureate of the Institute of the Academy of Medicine, and of the Faculty of Medicine of Paris. Translated by R. B. Douglass. Size of page five and one-half by seven and one-half inches. Pages v-169. Extra Cloth $1.00 net, Delivered. Philadelphia: A. F. Davis Company, Publishers, 1914-16 Cherry Street.

This is an expert practical treatise of value to the physician as a prudent counsellor in conditions especially arising from gonorrheal infliction.

This title does not reflect its real value as a clinical guide to correct practice and prudent counsel in the many local constitutions and social aspects of this disease.

PROGRESSIVE MEDICINE, Vol. II., Series of 1901, Lee Brothers & Co., 706, 708 and 710 Sansom Street, Philadelphia.

The second volume of the series of *Progressive Medicine*

maintains the high standard of science and utility of the previously issued volume. The most recent technique of the various operations for the radical cure of different kinds of hernia is described in concise and lucid terms by Dr. William B. Coley. He gives also the recent wonderful advances in the operative treatment of gastric ulcer and intestinal perforation.

Dr. John G. Clark in the section on gynecology pays attention to the parasitic origin of malignant growths, the utility of spinal anæsthetization in gynecological operative procedures, results of his own famous and epoch making study of the circulation of the ovary, a discovery which has cleared up many of the problems connected with ovulation and menstruation.

Stengel has an important chapter on the blood, in which he considers also the ductless glands, hæmorrhagic and metabolic diseases.

Dr. Edward Jackson concludes with an able résumé of the achievements of ophthalmologists during the past year.

Progressive Medicine presents the views of experts in their several departments on the world's work. The authors are men of professional eminence, as the various chapters bear evidence.

Handsome illustrations elucidate the book. The Grand Prize was awarded *Progressive Medicine* at the Paris Exposition of 1900.

IRREGULARITIES OF THE TEETH AND THEIR TREATMENT. By Eugene S. Talbot, M. D., D.D.S. F. A. Davis Co., 1901, Philadelphia. Fourth edition with 500 illustrations.

The present work is an attempt to demonstrate that irregularities of the jaws and teeth are the results of constitutional conditions in the main. The author has largely used biologic data in the explanation of pathologic and teratologic results. This, as he remarks, is nothing new in dental science nor in general medical science since the sciences separated from fetichism. At all times, lower animals have been used as a means of solving pathologic

and physiologic problems. The close of the last century has, however, witnessed an attempt to use such methods philosophically. The known structural and functional differences between animal and man have been employed in control experiments. In the use of embryology in explanation of physiologic and teratologic abnormality the present work has merely followed the trend of clinical investigation. An attempt has been made to control errors resultant on clinical observation by analysis based on the general principles of physiology and pathology. While the present work contains abundant clinical evidence in favor of the views advanced, this evidence has been critically analyzed from biologic, embryologic, physiologic, pathologic and sociologic standpoints. The work aside from its dental interest is of great value to alienists and neurologists. The discussion of heredity at this time especially, is particularly calculated to be of service. The environmental factors constituting the periods of stress (intra-uterine and extra-uterine) are shown to be potent in their effect upon the initial velocity given by heredity. The influence of age at marriage is discussed at length and shown to have an important influence on the vitality of the child. The theory that the Yankee is developing into an Indian, advanced by Prunner Bey and lately supported by Professor Starr, is discussed and the evidence is shown to be in the other direction. In the chapter on Race Admixtures modern views as to its great extent are adopted. The book is well issued and illustrated.

ATLAS AND EPITOME OF THE NERVOUS SYSTEM AND ITS DISEASES. By Professor Dr. Chr. Jakob, of Erlangen. From the Second Revised German Edition. Edited by Edward D. Fisher, M. D., Professor of Diseases of the Nervous System, University and Bellevue Medical College, New York. With eighty-three plates and copious text. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $3.50 net.

This Atlas portrays instructive lessons in medicine which are usually difficult of mastery by students and practitioners.

The matter is divided into Anatomy, Pathology and Description of Diseases of the Nervous System. The plates illustrate these lessons well. The publishers say with truth "there is probably no work in existence in which so much is compressed within so small a space."

The book is an indispensable and unequalled work for ready and satisfactory reference by the thoughtful and earnest student and practitioner of medicine who is ambitious to be and know the best in the knowledge and practice of the greatest of professions. Designed by Jakob, prefaced by Strämpell and edited by Fisher, its merit is beyond question, This great book came late to us else we had noticed it earlier.

FROM THE many handsome photographs of the Prospectus of the Practical Medicine Series, ten books on the year's progress in medicine, it is plain to be seen that the publishers are proud of the personnel and physiognomies of their Editorial Staff.

This is a pardonable attempt at hypnotizing the profession as the series will be a meritorious one and the faces are all irresistibly attractive. There are the intellectual visages of Billings and Murphy and E. C. Dudley and Casey Wood, looking at you from the first page; Christopher, Evans, Favill and Ridlon looking with far away looks, as if they had found all one needs to know, on the second page; Andrews, Baum, Peterson and Moyer on the third, strictly up-to-date "as you read on this page for thinking men" and on the fourth page the keen faced Hardie, and Patrick's twinkling eyes, as if he was about to spring a joke on you, and the handsome and accomplished Geo. F. Butler. This book, so chaperoned by such good men in medicine, should receive a welcome and entree into the best of medical society.

THE FIFTH EDITION OF PURDY'S PRACTICAL URINALYSIS AND URINARY DIAGNOSIS has before been noticed in our review department but it has proven so serviceable to us in daily practice that we take this occasion to again commend its practical utility as we have so often

proved it. Dr. Purdy, Fellow of the Royal College of Kingston and Professor of Clinical Medicine at the Chicago Post Graduate Medical School is himself a successful practitioner of medicine and an author of other meritorious books in medicine among them, "Brights Disease and Allied Affections of the Kidneys" and "Diabetes: its Causes, Symptoms and Treatment."

Numerous illustrations, photo-engravings and colored plates illustrate the text. F. A. Davis & Co., are the Publishers, Philadelphia, New York and Chicago.

"ETIDORHPA." The strange history of a mysterious being and the account of a remarkable journey in which the discovery of the element argon is forecast and the passage of mortal man with the faculties of man intact, into communion with the spirit world as foreshadowed by John Uri Lloyd, author of "Stringtown on the Pike," etc. Revised, recast, reset, and printed from new plates; carrying now the chapters excluded from the previous editions. Price complete, in cloth, postpaid, beautifully illustrated by Augustus Knapp, $1.50. Dodd, Mead & Company, Publishers, New York.

The many reviews that have come to our notice of this revised effort of the now famous author of "Stringtown on the Pike" have all been very commendatory of this wonderful story.

SAJOUS' ANNUAL AND ANALYTICAL CYCLOPEDIA OF PRACTICAL MEDICINE, Volume VI, with general index is before us. F. A. Davis & Co., Philadelphia.

This volume is the last of the first series. The publisher's and editor's promises made in the first announcements and preface have been scrupulously fulfilled.

All the general diseases usually described in the text books and more valuable medical matter have been presented. The volume is fully abreast of modern medical and surgical advance. The repute of the names of the editorial staff guarantee the proficient execution of the work, a guarantee well confirmed by examination.

The section on spinal cord injuries is specially well

written and the table of cord cocainization reflexes is especially valuable though no place is given to the virile or pudic nerve reflex as described by Hughes or the bulbo cavernous as mentioned by Onanoff. The pudic nerve reflex is incidentally included in reference to the anal and vesical centers along with the small sciatic, inferior haemorrhoidal and inferior pudic. But no other book yet published has given more prominence to this new diagnostic feature connected with the nervous system.

The table as given is the best one extant even though the Babinski reflex is not discussed, since much remains to be confirmed and precisely determined in regard to the claims of this reflex. The volume is indispensable on the whole to the modern medical man wishing to keep advanced in his profession.

CLAUDE HARTLAND is an auto-biographic history of a remorseful victim of sexual perversion told in chaste emotional phrase.

The book will interest physicians as other clinical history of the contrary sexual instinct as detailed by the patient himself. The author thinks he is doing humanity a service by recording his own personal, painful experience and offers to give hour interviews and the book to any similar sufferer or physician for one dollar and a half. The author's address is given in the book.

THE JOURNAL OF MEDICAL RESEARCH is announced and the first number is out.

It is devoted to the prompt publication of original investigations in medicine, and is the direct continuation of the Journal of the Boston Society of Medical Science. The expansion of the latter journal is the result of a demand that it should cover a wider field of medical activity than its name would allow.

The Journal of Medical Research is supported by The American Association of Pathologists and Bacteriologists, The Boston Society of Medical Science, and other sources of strength.

It will be represented in various centers of medicine

by prominent laboratory workers, to whom papers for publication in its pages may be submitted.

The first number contains the papers presented at the American Association of Pathologists and Bacteriologists,—twenty-nine in number,—consisting of over three hundred pages, with many plates. Numbers will be published as material accumulates, each containing approximately fifty pages, at least. Volumes will consist of about five hundred pages, and when one is completed, another will be begun.

The subscription price will be $4.00 a volume, payable in advance. Send subscription and price to Dr. Harold C. Ernest, Editor *Journal of Medical Research.*

AN INTRODUCTION TO THE PSYCHOLOGICAL STUDY OF BACKWARD CHILDREN. THE MENTAL DISEASES OF CHILDHOOD. By William B. Noyes, M. D., New York. Reprinted from the *New York Medical Journal* for June 22 and 29, 1901.

The author makes a specially strong point in referring to the evil of having defective will-power children subject to capricious management of the hysteric at home. Homes away from home are the best for these.

BURR'S PRIMER OF PSYCHOLOGY is also an excellent little book for one who wants the rudiments of psychology and mental disease. It is exclusively devoted to the understanding and management of Insanity. The F. A. Davis Company, New York, Philadelphia and Chicago, publish it.

NINTH ANNUAL COMMENCEMENT OF THE TRAINING SCHOOL FOR ATTENDANTS State Hospital for the Insane, Danville, Penn'a., July 11th, 1901.

Invitation and program and lists of graduates. Dr. and Mrs. Meredith are doing good work in this hospital for the good cause.

THE ARGOSY egotistically calls itself the biggest magazine in the big round world.

This is big boasting buncombe, in bad taste in an American magazine of any real pretension "crowded from cover to cover with rattling good stories."

SHAW'S ESSENTIALS OF NERVOUS DISEASES AND INSANITY, published by Saunders, in his question compend series, is a good little book to answer the purpose of inquiries we sometimes receive from young medical men seeking short-cut knowledge of the rudiments of neurology and psychiatry.

THE TREATMENT OF SKIN DISEASES WITH DOLOMOL POWDERS, Pulvola Medical Co., New York, would interest us more if the firm advertised with us. The business end of this periodical is run on business principles.

PERTINENT POINTS ON PEACOCK'S BROMIDES by the Peacock Chemical Co., St. Louis, makes good therapeutic reading.

A Preliminary Communication of a Study of the Brains of Two Distinguished Physicians, Father and Son. By Edward Anthony Spitzka, of New York City. Student of Medicine, College of Physicians and Surgeons.

A Contribution to the Fissural Integrality of the Paroccipita; observations upon one-hundred brains. By Edward Anthony Spitzka, New York. Student of Medicine, College of Physicians and Surgeons.

Programme of the American Congress of Tuberculosis in joint session with the Medico-Legal Society held at the Hotel Majestic, 72d Street and Central Park West on May 15th and 16th, 1901.

Seventeenth Annual Report of the Board of Trustees and Officers of the Toledo State Hospital to the Governor of the state of Ohio for 1900. Dr. H. A. Tobey, Superintendent.

The Redundancy of the Preinsula in the Brains of Distinguished Educated Men. By Edward A. Spitzka, New York. Student of Medicine, College of Physicians and Surgeons.

Ninth Biennial Report of the Wisconsin State Hospital for the Insane for the two fiscal years ending September 30, 1900, being part of the report of the State Board of Control.

Excision of the Intact Gasserian Ganglion with a report of two cases of Trifacial Neuralgia successfully treated by this means. By Willard Bartlett, M. D., of St. Louis.

Forty-Sixth Annual Report of the Board of Trustees and Officers of the Dayton State Hospital to the Governor of the state of Ohio for the year ending Nov. 15, 1900.

Eighth Annual Report of the Board of Trustees and Officers of the Massillon State Hospital to the Governor of the state of Ohio for the fiscal year ending Nov. 15, 1900.

Intrauterine Medication. By Frank A. Glasgow, M. D. Professor of Clinical Gynecology in St. Louis Medical College; Gynecologist to St. Louis Mullanphy Hospital.

Les Psychoses D'auto-Intoxication, considerations generales, Par Le Dr. E. Regis, charge Du Cours Des Maladies Mentales a L'Universite De Bordeaux.

Un Nouveau Cas. De Paralysie Gènérale. Avec Syphilis Hereditaire. Par le Dr. E. Regis. Charge du cours des maladies mentales a l'Universite de Bordeaux.

La Psychose. Post-Eclamptique Par Le Dr. E. Regis. Change du cours des maladies mentales Faculte de Medecine de Bordeaux.

Les Psychoses Post-Operatoires, Par Le Dr. E. Regis charge De Cours Des Maladies Mentales a L'Universite De Bourdeaux.

A case of Vaginal Hernia complicated with Pregnancy and Sepsis. By Frank A. Glasgow, M. D., St. Louis, Mo.

"The Most Useful Citizen:" A study in Human Dynamics. By F. W. Langdon, M. D., of Cincinnati, Ohio.

Study of Man. Arthur MacDonald, specialist in the United States Bureau of Education, Washington, D. C.

Sixth Biennial Report Eastern Indiana Hospital for the Insane for the period ending October 31, 1900.

Surgical Treatment of Palatal Defects. By Truman W. Brophy, M.D., D.D.S., L.L.D., Chicago, Ill.

A Contribution to the Study of Mountain Fever. By Harvey Reed, M. D., Rock Springs, Wyo.

Some Thoughts of the Ethics of Medical Journalism. Burnside Foster, M. D., St. Paul, Minn.

Post-Febrile Insanity and its Treatment. Frank Parsons Norbury, M.D., Jacksonville, Ill.

The Insanity of Puberty. By Frank Parsons Norbury, M. D., Jacksonville, Ill.

Delire Onirique Des Intoxications et Des Infections. By Dr. E. Regis.

Journal of the New York County Medico-Pharmaceutical League.

Abuses of Propriety Right. By Joseph Helfman.

Mellin's Infants' Food

Mellin's Food babies have pink cheeks, bright eyes, sound teeth, strong limbs and firm flesh.

UR BOOK, "THE HOME MODIFICATION OF COW'S MILK," SENT TO PHYSICIANS FREE UPON REQUEST.

MELLIN'S FOOD COMPANY, BOSTON, MASS.

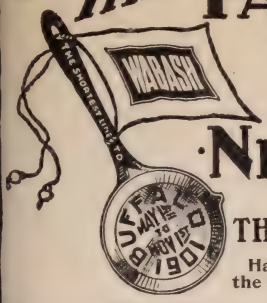
PUBLISHER'S DEPARTMENT.

HAGEE'S CORDIAL OF COD LIVER OIL COMPOUND is one of the most popular cod liver oil preparations on the market. All the nutritive properties of the oil are retained, and the disgusting and nauseating elements are eliminated. It offers to the profession a reconstructive of great value. It is easily digested and assimilated, and as a builder it has not an equal.—*International Journal of Surgery.*

A CORRECTON OF IODISM.—Dr. W. H. Morse reports (*Southern Clinic* for May) success in the use of Bromidia, which he says has proved corrigental of Iodia. Discussing his results he says: Vomiting is so frequent and troublesome a symptom, in many diseases, besides irritation and inflammation of the stomach, as to demand much practical attention from the physician. So, although the causes are so various, and although we are actually treating a symptom, for this symptom Bromidio is remarkably effectual. We have all employed the remedy for colic and hysteria, two disorders where nausea and vomiting are as pronounced as they are persistent, and almost the first evidence of relief is shown by the disappearance of these disagreeable symptoms. It is quite as efficacious for the nausea and vomiting from ulcer or cancer of the stomach. There is nothing that will more quickly check the vomiting, and the hypnotic effect is quite in order.—*Medical News.*

NEUROTIC CONDITIONS OF CLIMACTERIC PERIOD.—This form of neurosis is considered by the latest and best authorities as essentially hysterical and neurasthenic; a statement that seems borne out, at least in part, by the

TO THE PAN-AMERICAN EXPOSITION AND NIAGARA FALLS



THE WABASH

Has its own rails and is the shortest line from

Kansas City, St. Louis and Chicago

To BUFFALO AND THE FALLS



Stop-overs given at both points on all tickets.

Only line from St. Louis, via Niagara Falls. It crosses Detroit River, one of the most beautiful rivers of America.

For Descriptive Matter, Rates, etc., call on nearest Ticket Agent, or address

C. S. CRANE, Gen'l Passenger and Ticket Agent, ST. LOUIS.

Impotency Cases

...t; not how hopeless; cured or relieved by our combination.

Helantha Compound.

...is annuus [sunflower.] Fr. root, bark, H. Australian. Plain or with diuretic.

...owerful action upon the blood and entire organism, is in... **all cases** complicated with **Malaria, Scrofula,** im... Blood, Anaemia, etc., etc., in conjunction with Pil Orient... (Thompson), will control the most obstinate cases of **Impo...** "Drink Cure" cases, saturated with Strychnine, "Weak ...es, who tried all the advertised "cures" for impotency, ... poisoned with Phosphorus compounds, readily yield to ...ment. Pil Orientalis (Thompson) contains the Extract ...o Orientalis.

...herapeutical value of this Extract as a **powerful Nerve ...in tonic,** and **powerful stimulant of the Repro... Organs in both Sexes, cannot be over-esti...** It is not an irritant to the organs of generation, but A ...ATOR and SUPPORTER, and has been known to the native ... India, Burmah and Ceylon for ages, and has been a harem ... all countries where the Islam has planted the standard of ...

...mpossible to send free samples to exhibit in Impotency ...quiring several weeks treatment, but we are always willing ...omplimentary packages of each preparation (with formulas ...cal testimonials) to physicians who are not acquainted ... merits.

Helantha Compound, $1.85 per oz. Powder or Capsules.
Pil Orientalis (Thompson) $1.00 per box.

...MUNE TABLET COMPANY, WASHINGTON, D. C.

...NTS:

Meyer Bros. Drug Co., St. Louis.
Lord, Owen & Co., Chicago.
Evans-Smith Drug Co., Kansas City.
Redington & Co., San Francisco.
J. L. Lyons & Co., New Orleans.

CLARK

ENGRAVING CO.

MEANS — THAT YOU CAN GET HIGH GRADE CUTS FOR ANY KIND OF LETTER PRESS PRINTING — AT 84 MASON ST. MILWAUKEE

HALFTONES ON ZINC OR COPPER
WOOD ENGRAVING COMMERCIAL & PHOTOGRAPHY
ORIGINAL DESIGNERS & ARTISTS

predominance of the various reflexes. How far the latter condition may be due to irritation of the nerve-ends in the ovary depends, it would seem, on the degree of atrophy and consequent contraction of the tissues. The ordinary physical disturbances due to menstruation in some cases persist and cause various phenomena and often much annoyance. And while many of these symptoms may be, and some doubtless are, neurasthenic, it will be found wise not to abandon special medication. In the greater number of cases, two five-grain antikamnia tablets repeated every hour if necessary, will be found to give entire relief. Under this treatment the reflexes are naturally abolished, the nerves are soothed and the system returns to its normal equipoise. Antikamnia tablets are essentially pain-killers, yet in this instance they nullify the reflexes almost precisely after the same physiological fashion, so to speak, as they relieve pain, and without unpleasant after-effects. In cases of threatened metrorrhagia it is always advisable to administer "antikamnia and codeine tablets" as frequently as may be found necessary, say one every hour until six are taken. (George Brown, A. M., M. D., Atlanta, Ga.)

A LABORATORY FOR POISONS.—It's a wonderful laboratory, this human body. But it can't prevent the formation of deadly poisons within its very being.

Indeed, the alimentary tract may be regarded as one great laboratory for the manufacture of dangerous substances. "Biliousness" is a forcible illustration of the formation and absorption of poisons, due largely to an excessive proteid diet. The nervous symptoms of the dyspeptic are often but the physiological demonstrations of putrefactive alkaloids. Appreciating the importance of the command, "keep the bowels open," the physician will find in "Laxative Antikamnia and Quinine Tablets" a convenient and reliable aid to Nature in her efforts to remove poisonous substances from the body. Attention is particularly called to the therapeutics of this tablet. One of its ingredients acts especially by increasing intestinal secretion, another by increasing the flow of the bile, another by stimulating peristaltic

THE MK AND T
MISSOURI, KANSAS & TEXAS R'Y.



FAST TRAIN
The Katy Flyer"

BETWEEN

T. LOUIS,
KANSAS CITY,
CHICAGO,

Has Through Sleepers

TO

L'ESTON, SAN ANTONIO AND AUSTIN, TEX.

Also Intermediate Points.

cursion Sleepers leave St. Louis for Texas, New Mexico, Arizona and California every Tuesday, 8:16 p. m.

HALE,
Traffic Manager.

JAMES BARKER,
General Passenger and Ticket Agent.

ST. LOUIS, MO.

action, and still another by its special power to unload the colon.

AN IMPORTANT LAW.—House Bill No. 320. An act to prevent the substitution of any drug in filling physicians' prescriptions by druggists in the state.

Section 1. Be it enacted by the General Assembly of the State of Tennessee, That it shall be unlawful for any corporation, firm or person, or any combination or association of corporations, firms or persons engaged in the business of buying, compounding and selling drugs and medicines to substitute any drug or medicine in lieu of that given to the patient by the physician on the face of his prescription.

Section 2. Be it further enacted, That it shall be unlawful for any agent or employe of such person, firm or corporation or association or combination of persons, firms or corporations engaged in the business of buying and selling drugs in the State to substitute any medicine for the specific medicine mentioned in the physician's prescription.

Section 3. Be it further enacted, That any person, firm or corporation violating the provisions of this act, or aiding or abetting the violations of the same shall be guilty of a misdemeanor and upon conviction shall be fined not less than twenty-five dollars nor more than one hundred dollars for each and every offence.

Section 4. Be it further enacted, That this act take effect from and after its passage, the public welfare requiring it.

Approved April 3, 1901.

BENTON McMILLIN, Governor.

E. B. WILSON, Speaker House of Representatives.

NEWTON H. WHITE, Speaker of the Senate.

A true copy, JOHN W. MORTON, Secretary of State.

THE TWENTY-SEVENTH Annual Meeting of the Mississippi Valley Medical Association adjourned at Put-in-Bay, after a most successful session, on the morning of the 14th, out of respect to our martyred President. The following

The Treatment of

EPILEPSY AND THE NEUROSES

UCCESSFULLY ACCOMPLISHED
...BY THE USE OF...



HYDROCYANATE OF IRON (TILDEN'S)

A STANDARD NEUROTIC REMEDY,

——INDICATED IN——

PILEPSY	LOCOMOTOR ATAXIA	HYSTERIA	NEURASTHENIA
ANIA	NEURALGIA	CHOREA	MIGRAINE

DOCTORS, INVESTIGATE! Write us for literature and clinical reports on the treatnt of EPILEPSY and NEUROSES. We have on file in our office hundreds of testimonials n men of prominence and ability in their chosen profession, who have employed HYDROANATE OF IRON (Tilden's) with unvarying success in the treatment of EPILEPSY. pies of same cheerfully mailed upon application.

Prepared Exclusively for Physicians' Prescriptions.

LD ONLY IN OUNCE CARTONS, 1/2 AND 1-GRAIN TABLETS.
$1.00 PER OUNCE.

PREPARED ONLY BY

THE TILDEN COMPANY,

Manufacturing Pharmacists,

W LEBANON, N. Y. ST. LOUIS, MO.

The Western Clinical Recorder

(BI-MONTHLY).

A Pithy, Practical Periodical for Practicing Physicians

t at will keep a man fully abreast of the times, if he can a ord but one, and one that the practitioner who takes twenty c nnot afford to do without.

The RECORDER will be found to be an original, clean, e ical, inexpensive periodical; a continuous post-graduate c rse in all departments of medicine and surgery.

THE USEFUL JOURNAL FOR THE BUSY MAN, $1.00 Per Year in Advance;

which subscription may be sent to the office of publication, Lakeside Press, Chicago, or to the Editorial Office, Ashland, Wisconsin.

officers were elected for the ensuing year: President, J. P. Collins, M. D., Hot Springs, Ark.; First Vice-President, J. C. Culbertson, M. D., Cincinnati, O.; Second Vice-President, Paul Paquin, M.D., Asheville, N. C.; Secretary, Henry Enos Tuley, M. D., Louisville, Ky.; Treasurer, Thos. Hunt Stucky, M. D., Louisville, Ky.; Chairman Committee of Arrangements, A. H. Cordier, M. D., Kansas City, Mo. Twenty-eighth annual meeting, Kansas, City, Mo., Oct. 1902. Very truly,

HENRY ENOS TULEY, Sec'y.

UNDER THE AUSPICES of the Chicago Medical Society a banquet and celebration has been held in honor of Dr. Nathan Smith Davis, M.D., L.L.D., who is the oldest living president of the Society and widely known and honored among the profession by his long connection with the American Medical and other associations. The banquet took place at the Auditorium Hotel, Chicago, Saturday evening, October 5th, 1901.

ECTHOL exerts a decided influence on eczema, and can be used to advantage in several different conditions. In cases of moist and inflamed lesions, with great soreness and irritation, it may be given in teaspoonful doses; and the more markedly the eruption is purulent the more decided the effect. It may also be used with manifest advantage when the patches are greatly infiltrated and the inflammation is sub-acute in character.—*American Journal of Dermatology and Genito-Urinary Diseases.*

FIROLYPTOL, Tilden's. The acme of restoratives. Nutritive, stimulant, antiseptic, indicated in all strumous and tuberculous conditions. The selection of the proper remedy or combination of remedies for the successful treatment of lung and bronchial diseases has been one of the difficult problems of modern therapy. It is true that, theoretically, many could be suggested, but these have been found to be practically impossible to administer, or inefficient when once introduced into the body. Those that have been

WE SUPPLIED ALL THE CITY INSTITUTIONS WITH DRY GOODS LAST YEAR.

WM. BARR DRY GOODS CO.

Keep the Largest Stock of Goods suitable for

HOSPITAL PURPOSES

TO BE FOUND IN ST. LOUIS,

And Special Terms will be made with all Institutions ordering from them.

BEDDING MATERIALS OF ALL KINDS,
UNDERCLOTHING, IN SILK, WOOL AND COTTON,
LADIES' AND CHILDRENS' READY-MADE CLOTHING,
FLANNELS AND UPHOLSTERY,
TABLE AND BED ROOM LINENS,
SOAPS, NOTIONS AND PERFUMERIES,

ARE ALL SPECIALTIES AT THE

WM. BARR DRY GOODS CO'S

NEW BUILDING,

SIXTH, OLIVE AND LOCUST, - - - ST. LOUIS.

P. S. Write and find out our special terms to Hospitals.

HALL-BROOKE, A PRIVATE HOSPITAL For Mental and Nervous Diseases

CASES OF ALCOHOLISM AND DRUG HABIT.

An inviting quiet **hospital** for the careful medical care of acute mental diseases, with a refined congenial **home** for the chronic mental invalid. The location is unsurpassed for healthfulness and charming environment. Cases of alcoholism and drug habit may commit themselves. For information and rates address

DR. D. W. McFARLAND, **GREEN'S FARMS, CONN.**
Hours, 12-1 and by appointment.

New York Office with **Dr. LAWRENCE,** **55 East 65th St.**
New York Telephone 591-79th St.

found of use suffered from the disadvantage of not being sufficiently energetic in their action, and thus falling short of producing the desired results, so that it is obvious that the ideal remedy would be one easily assimilated, preserving its properties after ingestion, and producing good results. In addition to these qualities, it should also be nutritive, stimulating and antiseptic. All of these conditions have been fulfilled by Firolyptol with Kreosote in a manner that leaves nothing to be desired by the physician. Manufactured only by The Tilden Company, manufacturing pharmacists, New Lebanon, N. Y., and St. Louis, Mo.

St. Louis, May 15th, 1901.

Henry Heil Chemical Co., City.

Dear Sir:—Please accept thanks for samples sent me of your splendid remedies, Borobenphene also Glycobenphene. I should have acknowledged receipt of them before but wished to give them a fair trial before reporting. It is not my custom to recommend every sample that I receive, but in your Borobenphene and Glycobenphene I find an exception to my rule as I do not believe there is any skin disease, acute or chronic, that will resist Glycobenphene combined with Borobenphene. I find them especially adapted to the various forms of Eczema, but of course, the Doctor must know how to treat them, for there is no remedy known today that will cure all cases by merely local application; every case is a little different. I have no trouble in curing any case with Glycobenphene also Borobenphene and in genito-urinary practice also Gynecology they are par excellence. I can cheerfully recommend them to my brother practioners. Again thanking you, I remain,

Yours respectfully, J. M. RADER, M. D.

EVERYBODY KNOWS the condition—it's so extremely common and rebellious, some physicians call it general debility, or malnutrition, or nervous exhaustion, or a host of other names. Whatever its name or its cause, there exist the very striking facts that the blood has been impoverished, the nervous system ravished, the vitality sapped out.

TO GUARD THE HEART

In the treatment of Febrile, Nervous and Chronic Diseases, and as a Remedy in Functional Disorders of the Heart and Circulation.

Each Pillet represents one one-hundredth of a grain of Cactina, the active proximate principle of Cereus Grandiflora (Mexicana).
DOSE—1 to 3 pillets.

USE

CACTINA is no longer an experiment. Physiological writers and the medical profession recognize in it the safest heart tonic in many conditions.

CACTINA PILLETS.

Sample mailed free to physicians.

Artificial digestive agents, such as pepsins and pre-digested foods, are temporary expedients. In treating chronic dyspeptics

SENG

increases the secretion of the digestive fluids, relieves congestion of the mucous coats of the entire alimentary canal and restores the assimilative processes. Dose—one teaspoonful before meals; the dose before breakfast preferably in hot water. Samples to physicians who will pay express charges.

SULTAN DRUG CO., Manufacturers of Cactina Pillets and Seng, St. Louis.

Peacock's Bromides | Chionia

WHEN YOU USE

PEACOCK'S BROMIDES

YOU USE THE BEST.

Each fluid drachm, represents 15 grains of the combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium, and Lithium.

Put up in half-pound bottles only. Full size sample to physicians who will pay express charges.

CHIONIA

AN HEPATIC STIMULANT, NOT A CATHARTIC.

(From Chionanthus Virginica.)

Stimulates portal circulation, strengthens the lymphatics, and removes Chronic Constipation and Sluggish Conditions of the Liver by its general tonic action on that organ.

Put up in half-pound bottles only. Full size bottle to any physician who will pay express charges.

PEACOCK CHEMICAL COMPANY, St. Louis.

It would seem extremely rash to make the statement that any one remedy is equally efficacious in all of these cases, particularly so when the usually employed tonics—iron, strychnine, cod liver oil, etc.—have utterly failed. Yet such is the statement of thousands of physicians whose names are everywhere the synonyms for eminence, integrity, ability; physicians who represent all that is best in ethical, scientific medicine. It is this class of physicians who make the unqualified assertion that Gray's Glycerine Tonic Comp. is uniformly effective in malnutrition, general debility, nervous prostration—whether the condition accompanies organic disease, acute infectious diseases or exists without ascribable cause. Gray's Tonic begins aright in these cases; it makes a friend of the rebellious stomach—makes it docile, receptive, retentive. The patient improves from the start—has more strength, less depression and exhaustion. The physician notes the patient's ability to eat, digest and assimilate food—the dormant nutritive functions seem to assume new life. The blood rapidly regains the necessary elements for healthful nutrition of the entire body—the red blood corpuscles and hæmoglobin increase hand in hand; nervous force, vitality, is re-engendered: irritability, sleeplessness and exhaustion disappear. Restoration of constitutional vigor and return to health is but a natural sequence; it usually results in a surprisingly short time. Skepticism as to the truth of these facts may be entertained by those who have never given Gray's Tonic a fair clinical trial, but with those physicians who have tried the remedy, skepticism has yielded to the inexorable verdict of facts—actual, accomplished results. The experience of countless physicians leave no ground for doubt that Gray's Tonic is the remedy par excellence—the pleasant, uniformly effective remedy—in waste of tissue and impoverishment of blood and vitality. Its rapidity of action is especially noticeable in convalescence from typhoid fever, la grippe, pneumonia and other exhausting ailments. Its uniformity of action is a certainty in all.

Gray's Glycerine Tonic Comp. owes its distinctive value to the proportion of the contained ingredients and their

"RIVER CREST,"

(UNDER STATE LICENSE.)

ASTORIA, L. I., **NEW YORK CITY.**



FOR MENTAL AND NERVOUS DISEASES.

Separate detached building for **Alcoholic** and **Drug Habitues.** Splendid location. Overlooks East River and the City. Address **J. JOS. KINDRED, M. D., Physician-in-Charge.** City Office, 1125 Madison Avenue Cor. 84th Street, 2 o p. m. daily. Sanitarium telephone, 36 Astoria.

The Richard Gundry Home,

CATONSVILLE, BALTIMORE CO., MD.

A private Home for the treatment of Mental and Nervous Diseases, Opium and Alcoholic addictions. For Circulars, Rates, etc., Address,

DR. RICHARD F. GRUNDY, Catonsville, Md.

References—Dr. Henry M. Hurd, Dr. Wm. Osler, Johns Hopkins Hospital, Baltimore, Md. Dr Thomas A. Ashby, Dr. Francis T. Miles and Dr. Geo. Preston, Baltimore, Md. Dr. George H. Rohe, Sykesville, Md. Dr. Charles H. Hughes, St. Louis.

THE BLUE HILLS SANITARIUM MILTON, MASSACHUSETTS.

A PRIVATE HOSPITAL AND IDEAL RESORT.

All classes of patients admitted. Separate department for the victims of ALCOHOL, OPIUM, COCAINE AND OTHER DRUG HABITS.

All desire for liquors or the baneful drugs overcome within three days after entrance, and without hardship or suffering.

A well-equipped Gymnasium, with competent Instructors and Masseurs, for the administration of purely hygienic treatment; also a Ten-plate Static Electrical Machine, with X-Ray, and all the various attachments.

J. FRANK PERRY, M. D., Supt., 2 Park Square, Boston, Mass.

DR. WM. B. FLETCHER'S SANATORIUM.

For treatment of Nervous and Mental Diseases. Special treatment of Diseases of Women by DR. MARY A. SPINK.

218 N. ALABAMA ST., - - - INDIANAPOLIS, IND.

THE ALPHA SANITARIUM,

LAKE FOREST, ILLS.

Established for the treatment of the Functional Derangements and Morbid Psychologies that occur during Adolescence.

For further particulars address

W. XAVIER SUDDUTH, M. D., 100 State St., CHICAGO.

Mention this Journal when writing to Advertisers.

manner of combination. All imitations lack these characteristics of the original and are consequently of inferior value.

STYLES FOR THE WINTER—The easiest and simplest way we can suggest for our readers to get a good idea of the styles that will be popular this winter is to buy a copy of the October *Delineator*, just on sale at every news stand. *The Delineator* for October foreshadows, by means of its New York, Paris and London connections, those tendencies of fashion that will certainly prevail.

In addition to the fashion features and practical dressmaking advice that has made *The Delineator* famous, the October number is full of good general reading, most tastefully illustrated under the immediate direction of the well-known artist, William Martin Johnson. Mr. Johnson's work is known to lovers of the beautiful, by reason of the Garfield edition of *Ben Hur*, as well as some other books of large sale. Mr. Johnson believes in illustrations that illustrate, rather than in pictures that only ornament a page. The whole October number of *The Delineator* is full of interest to men as well as to women.

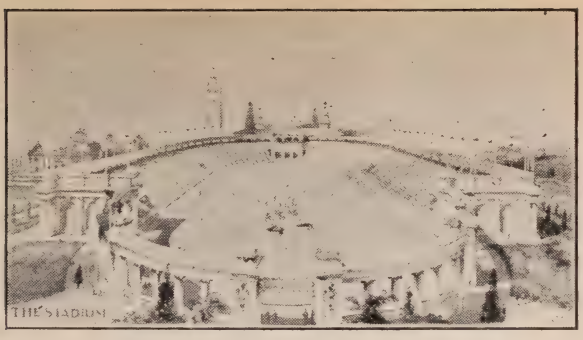
GOLF.--The Alma Sanitarium Company, recognizing the many advantages of golf, especially to the health seeker, whether old or young, commenced work in 1899, under the direction of a professional golfer, and today their links will compare favorably with any in the country.

The grounds are only three squares from the Sanitarium, on high, rolling, well drained land, having natural and artificial hazards.

There are nine holes, with a total of 2451 yards, giving the golfer ample opportunity to enjoy this most beneficial and attractive of all out-door games.

Although the links are private property, they are open to the guests of the Wright House, residents of Alma and the college students.

OLEAGINOUS SCIENCE.—There have been many reported "strikes" in oils, and now it is asserted by some



Greenmont-on-the-Hudson.

For NERVOUS and MENTAL DISEASES.

RALPH LYMANS PARSONS, M.D. RALPH WAIT PARSONS, M.D.

City Office, 21 East 44th St.,
Mondays and Fridays, 3:30 to 4:30, p.m.

SING SING, P. O., N, Y.
Long Distance Tel., Hart, 140A, Sing Sing, N.Y

CREST VIEW SANITARIUM,

GREENWICH, CONN.

A quiet refined home for the treatment of

Chronic and Nervous Diseases,

In the midst of beautiful scenery, 28 miles from New York.

H. M. HITCHCOCK, M. D.

THE COMPTON SCHOOL

FOR THE

Psycho-Physiological Training of Children

....OF....

Retarded Mentality.

For Particulars address the Principal,
OPENS SEPT. 4, 1901.

MISS FANNY A. COMPTON,
4562 SCOTT AVE., ST. LOUIS, MO.

SANITARIUMS AND DOCTORS

CAN OBTAIN

SPECIAL RATES for CARD ADVERTISEMENTS

We have a few bound copies of the ALIENIST AND NEUROLOGIST on hand. Price, $6.50 Prepaid.

Mention this Journal when writing to advertisers.

scientist that petroleum is really a distilled and fossil fish oil! It is possible that Norway cod were really at the bottum of the Standard Oil Company? Who can say? If science says so, one may go on downing the oil, but there is no downing science.

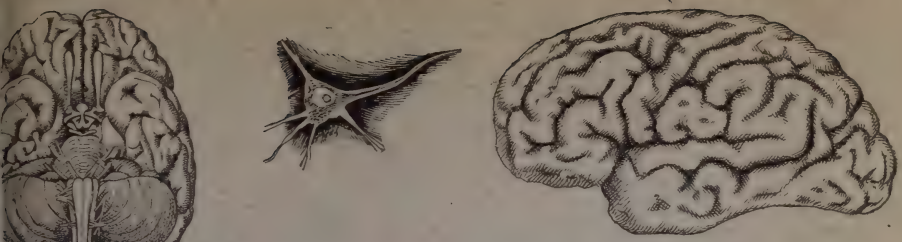
Hagee evidently believes in science and in oil in the same breath. In any event Hagee's Ol. Morrhuae Comp. is the outcome of scientific combination and adaptation. It's formula makes it a food of the greatest value in all wasting diseases and low states.

It there is anything better in the market we shall be glad to herald its virtues.—*The Dietetic and Hygienic Gazette.*

THE PETTY THIEF "exists in every walk of life; he is the short-weight grocer, the lying tradesman, the substituting pharmacist—manufacturing or retail." The Purdue Frederick Company have caught him imitating their excellent Gray's Glycerine Tonic Compound. They tell us and truly that "Gray's Glycerine Tonic Comp. owes its distinctive value to the proportion of the contained ingredients and their manner of combination. All imitations lack these characteristics of the original and are consequently inferior in value."

We know the composition well and know its original devisor Dr. John P. Gray of Utica. It is an unexcelled prescription and can not be duplicated either so well or economically to the patient by any retail dispensing pharmacist. The Purdue Frederick Company should always be specified to insure the real thing.

THE RIO CHEMICAL CO., formerly of St. Louis, Mo., has moved its entire office to 56 Thomas Street, New York City, where all communications should be addressed.



THE ALIENIST AND NEUROLOGIST

ST. LOUIS MO.

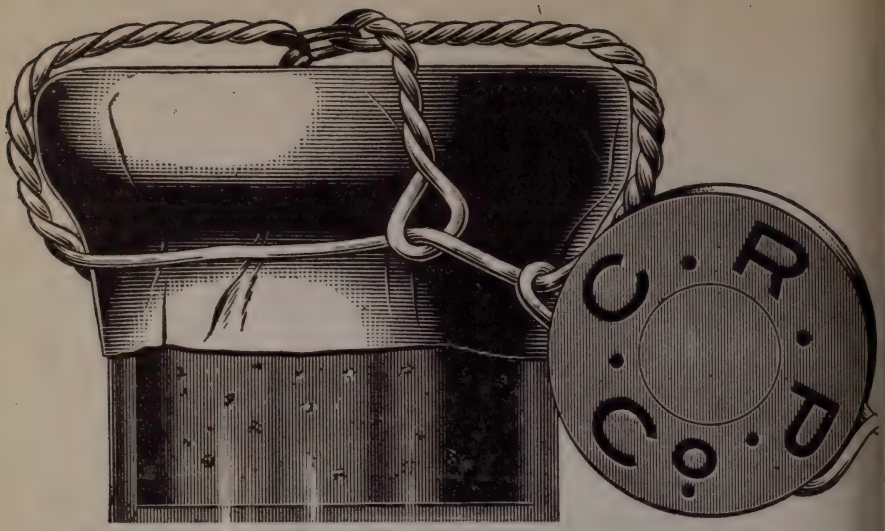
Vol. XXII. JANUARY, 1901. No. 1.

A JOURNAL OF
NEUROLOGY AND PSYCHOLOGY
PSYCHIATRY AND NEURIATRY.
FOR
THE NEUROLOGIST,
GENERAL PRACTITIONER
AND SAVANT.

ANOPEPTON

Contains the entire food substances of beef and wheat;—contains these constituents in the soluble, perfectly diffusible form into which they are converted by the natural animal enzymes in the process of normal digestion.

Manufactured by
FAIRCHILD BROS. & FOSTER
NEW YORK



This is an enlargement of the top of a bottle of genuine Arsenauro or Mercauro (the TONIC ALTERATIVES). Our bottles bear no dose label, we never send literature to laymen, thus they cannot even guess the dosage. The administration of these products is therefore entirely in the hands of medical practitioners. We protect you. If you protect us by insisting upon the presence of this seal, our combined efforts will protect your patient. Your medical skill and our chemical skill are entirely nullified if the patient obtains a spurious article.

CHAS. ROOME PARMELE CO., 36 PLATT ST., N.Y.

Uniformly Effective, Agreeable and Lasting,—the Standard Preparation of Erythroxylon Coca

During past 30 years most popularly used Tonic-Stimulant in Hospitals, Public and Religious Institutions everywhere.

VIN MARIANI

"MARIANI WINE"

We have received over 7000 written endorsements from PROMINENT PHYSICIANS in Europe and America.

FORMULA: The concentrated extract—the aromatic principle of the fresh Coca Leaf, blended with a special quality of grape juice of southern France.

DOSE: Wine-glassful three times a day, or more or less at Physician's discretion.

Nourishes - Fortifies - Refreshes

AIDS DIGESTION - STRENGTHENS THE SYSTEM

AGREEABLE TONIC-STIMULANT WITHOUT UNPLEASANT REACTION.

To avoid disappointment please specify "Vin Mariani."

SOLD AT ALL PHARMACIES.

PARIS: 41 Boulevard Haussmann.
LONDON: 239 Oxford Street.
MONTREAL: 28 Hospital Street.

MARIANI & CO., 52 W. 15th St., New York.

Pure Water is a Necessity.

THE CRYSTAL WATER CO.

OF ST. LOUIS

Furnishes a water that is absolutely free from all chemical and organic impurities. It is doubly distilled and re-aerated with sterilized air.

CRYSTAL WATER

Is the only sterilized water on the market. Every bottle guaranteed. For drinking purposes it is unequaled. It is especially valuable to the medical profession.

1. In compounding medicine.
2. In all diseases of the assimilative and excretory organs.
3. In surgical operations, by reason of its portability and aseptic qualities.
4. In chemical analyses and for cleaning containers and instruments.
5. In obstetrical practice and genito-urinary surgery.
6. In cases where laporotomy is performed.
7. In Medical Colleges and for bacteriological work.
8. Hypodermic injections.

CRYSTAL LITHIA WATER

Is the best in the world and perfectly uniform, containing 10 grains to the gallon. Crystal **vichy** and **seltzer** in **siphons** are unsurpassed for use among the sick.

CRYSTALARIS

is a new mineral water put up by the Crystal Water Co. It is made from pure Crystal water, and the best of German salts, producing the most delicious sparkling mineral water ever offered to the public.

CRYSTAL WATER CO.,

2020-2026 Walnut Street. **ST. LOUIS, MO.**

IF YOU ARE

AN ADVANCED PHYSICIAN or PROGRESSIVE LAWYER,

YOU CANNOT DO WITHOUT THE

ALIENIST AND NEUROLOGIST.

THE ablest men in Neurology and Legal Medicine subscribe and write for it.

The morbid movements of the mind, brain and nervous system are mirrored in its pages by master minds in medicine constantly gains and seldom loses subscribers.

ADDRESS H. L. HUGHES, M. D.,

MANAGER AND PUBLISHER,

57 Olive Street, ST. LOUIS, MO. **$5.00 Per Annum.**

Gardner's Syrup of Hydriodic Aci

HAS A WORLD-WIDE REPUTATION.

It Never Fails to produce best results.

It was the First Permanent Preparation of Iodide of Hydro ever made.

It has been in Constant Use by The Best Physicians for 22 Ye

It is the Most Permanent Syrup of Hydriodic Acid on the mar

Its Therapeutic Action Is Superior to that of any of the imitatic

The use of Gardner's Syrup has Established The Reputation Hydriodic Acid.

Nearly All The Literature on this remedy has been written physicians whose Results Were Obtained by the use Gardner's Syrup.

Specify Gardner's. Allow No Substitution.

OAKWOOD. LAKE GENEV WISCONSIN.



For the treatment

DISEASES OF THE BRAIN AND NERVOUS SYSTE

Elegant apartmen private parlors a dining rooms; skil nurses and atter ants; massage, el tricity; Turkish a Russian baths. splendid park ov looking the lake a city; a charm summer retreat; perfect home of w ter comfort.

Long Distance Telephone, Lake Geneva 61.
Address all communications and inquries to the medical superintendent,

DR. WILLIAM E. DOLD,

(LATE ACTING MEDICAL SUPERINTENDENT, BLOOMINGDALE, NEW YOR